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ABSTRACT

This is the second of four monographs reporting the findings of Phase 2 of the International Association for the Evaluation of Educational Achievement (IEA) Preprimary Project, which presents data on the physical characteristics of children's early childhood settings. Early childhood settings were documented in the following 15 countries: (1) Belgium; (2) China; (3) Finland; (4) Greece; (5) Hong Kong; (6) Indonesia; (7) Ireland; (8) Italy; (9) Nigeria; (10) Poland; (11) Romania; (12) Slovenia; (13) Spain; (14) Thailand; and (15) United States. The monograph is divided into five sections. Section 1 provides a general introduction to the IEA/PPP's philosophy as well as information from the research literature about structural characteristics. Section 2 presents brief description profiles of early childhood care and education for each of the 15 countries focusing primarily on the status of settings serving 4-year-olds. Section 3 describes the study's methodology, including additional information about the instruments, sampling, and data collection for Phase 2, as well as a description of each country's sampling plan and data collection procedures. Section 4, chapters 5-10, reports the findings from the Provider Survey administered to the settings sampled in each country, in the areas of management policies and staffing, patterns of operation, physical characteristics, ancillary support services and parent involvement, teacher characteristics, and, from only Finland and United States, structural characteristics of family day care homes. The final section presents a summary of cross-national findings. Five appendices include the organized facility/group setting provider survey, the non-group/small-group setting

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provider survey questionnaire, supplementary tables, and a listing of national research centers and coordinators for Phase 2 of the project. (Contains 142 references.) (HTH)

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THE IEA PREPRIMARY PROJECT
PHASE 2

EARLY CHILDHOOD SETTINGS IN 15 COUNTRIES

WHAT ARE THEIR STRUCTURAL CHARACTERISTICS?

Edited by
Patricia P. Olmsted and Jeanne Montie

With
Jill Claxton and Sherri Oden

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CONTENTS

Tables xv
Figures xix
Acknowledgments xxi
Preface xxiii
A Word About IEA xxv

GENERAL INFORMATION

I. **THE STUDY BACKGROUND,** *Patricia P. Olmsted and Jeanne Montie* 5
- An Overview of the IEA Preprimary Project 6
  - Participating Countries 6
  - Status of the Project 7
- Phase 2 of the Preprimary Project 7
  - Conceptual Framework 7
  - Overview of Instruments, Sampling, and Data Collection 8
- A Guide to Reading the Monograph 10

II. **STRUCTURAL CHARACTERISTICS OF EARLY CHILDHOOD SETTINGS: A REVIEW OF THE LITERATURE,** *Jeanne Montie* 13
- National Early Childhood Policy 15
  - Government Support of Preprimary Programs 15
  - Financing Preprimary Programs 16
  - Regulation of Preprimary Services 17
  - Management Policies and Quality 18
- Patterns of Operation 20
  - Availability of Services and Extent of Coverage 21
  - Operating Schedules and Child Outcomes 24
  - Group Size and Staff-Child Ratios 24
  - Outcome Research on Group Size and Staff-Child Ratios 26
- Physical Characteristics of Child Care and Education Settings 28
  - Center Size 28
  - Space per Child 29
  - Structure of Space 31
  - Outdoor Space 32
  - Materials 32
- Outside Resources and Support Services in Preprimary Settings 34
  - Support Services 34
  - Parent Involvement 36
- Teacher Characteristics 43
  - Teacher Education 44
  - Teacher Experience 49
  - Stability of Staff 50
- Summary and Conclusions 51

COUNTRY-LEVEL PREVIEWS OF STRUCTURAL CHARACTERISTICS

III. **NATIONAL PROFILES OF THE STRUCTURAL CHARACTERISTICS OF PREPRIMARY SETTINGS IN VARIOUS NATIONS,** *Geneviève Hindryckx, ZongPing Xiang, Mikko Ojala, Christos Frangos, Sylvia Opper, Diah Harianti, Nóirín Hayes, Lucio Pusci, Olayemi Onibokun, Malgorzata Karwowska-Struczyk, Eva Bahovec, Mireia Montané, and Nittaya Passornsiri* 55

How to Review the Profiles 56
  Currentness of Information Provided 56
  Variation in Setting Labels 56
  Examination of the Statistics and Additional Information 56
Belgium 57
  Management Policies and Staffing 57
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 58
  Physical Characteristics of Settings 59
  Support Services and Home-Setting Contact 60
  Characteristics of Lead Teachers and Caregivers 60
China 60
  Management Policies and Staffing 61
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 61
  Physical Characteristics of Settings 62
  Support Services and Home-Setting Contact 63
  Characteristics of Lead Teachers and Caregivers 63
Finland 64
  Management Policies and Staffing 64
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 65
  Physical Characteristics of Settings 65
  Support Services and Home-Setting Contact 66
  Characteristics of Lead Teachers and Caregivers 67
Greece 67
  Management Policies and Staffing 68
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 69
  Physical Characteristics of Settings 69
  Support Services and Home-Setting Contact 70
  Characteristics of Lead Teachers and Caregivers 70
Hong Kong 71
  Management Policies and Staffing 71
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 72
  Physical Characteristics of Settings 73
  Support Services and Home-Setting Contact 73
  Characteristics of Lead Teachers and Caregivers 74

Indonesia 74
  Management Policies and Staffing 74
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 75
  Physical Characteristics of Settings 76
  Support Services and Home-Setting Contact 77
  Characteristics of Lead Teachers and Caregivers 77
Ireland 77
  Management Policies and Staffing 78
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 80
  Physical Characteristics of Settings 80
  Support Services and Home-Setting Contact 81
  Characteristics of Lead Teachers and Caregivers 81
Italy 82
  Management Policies and Staffing 82
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 83
  Physical Characteristics of Settings 84
  Support Services and Home-Setting Contact 85
  Characteristics of Lead Teachers and Caregivers 85
Nigeria 86
  Management Policies and Staffing 86
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 87
  Physical Characteristics of Settings 88
  Support Services and Home-Setting Contact 89
  Characteristics of Lead Teachers and Caregivers 89
Poland 90
  Management Policies and Staffing 90
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 91
  Physical Characteristics of Settings 92
  Support Services and Home-Setting Contact 93
  Characteristics of Lead Teachers and Caregivers 93
Slovenia 94
  Management Policies and Staffing 94
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 95
  Physical Characteristics of Settings 95
  Support Services and Home-Setting Contact 96
  Characteristics of Lead Teachers and Caregivers 97
Spain 97
  Management Policies and Staffing 97
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 98
  Physical Characteristics of Settings 99
  Support Services and Home-Setting Contact 100
  Characteristics of Lead Teachers and Caregivers 101

Thailand 101
  Management Policies and Staffing 101
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 102
  Physical Characteristics of Settings 103
  Support Services and Home-Setting Contact 104
  Characteristics of Lead Teachers and Caregivers 104
United States 105
  Management Policies and Staffing 105
  Patterns of Operation, Group Sizes, and Staff-Child Ratios 107
  Physical Characteristics of Settings 107
  Support Services and Home-Setting Contact 109
  Characteristics of Lead Teachers and Caregivers 110

HOW THE STUDY WAS CONDUCTED

IV. METHODOLOGY OF THE PHASE 2 STUDY, *Patricia P. Olmsted 115*
General Information About Phase 2 Sampling 115
  The International Sampling Referee 115
  The Target Population 116
  General Sampling Procedures 116
  Selection of Settings and Children 116
General Information About Phase 2 Data Collection 117
  The Instruments 117
  Development of the Provider Survey Questionnaire 118
  Phase 2 Data Collection Procedures 120
Phase 2 Methodology in Specific Countries 120
  Sampling and Data Collection in Belgium (Fr.—Liège Province, Brussels) 120
  Sampling and Data Collection in China (PRC, 6 Provinces) 122
  Sampling and Data Collection in Finland 123
  Sampling and Data Collection in Greece (Urban) 124
  Sampling and Data Collection in Hong Kong (SAR) 125
  Sampling and Data Collection in Indonesia (Java) 126
  Sampling and Data Collection in Ireland 127
  Sampling and Data Collection in Italy 128
  Sampling and Data Collection in Nigeria (3 States) 129
  Sampling and Data Collection in Poland 129
  Sampling and Data Collection in Romania 130
  Sampling and Data Collection in Slovenia 131
  Sampling and Data Collection in Spain (Catalonia) 131
  Sampling and Data Collection in Thailand 132
  Sampling and Data Collection in the United States (6 Sites) 133
Summary Statements 134

STUDY FINDINGS

V. **MANAGEMENT POLICIES AND STAFFING,** *Patricia P. Olmsted and Sylvia Opper 139*
- Sponsors of Early Childhood Settings 140
  - General Sponsor Findings 140
  - Multiple Sponsor Findings 143
  - Percentage of Settings With Government Sponsorship 145
- Licensing and Supervision of Early Childhood Settings 148
  - Percentages of Settings Licensed or Certified 149
  - Length of Time Settings Have Been Licensed or Certified 151
  - Types of Licensing/Certification Agencies 154
  - Review of Licensed/Certified Settings 156
  - Supervision of Licensed/Certified Settings 157
- Criteria for Admission to Early Childhood Settings 159
- Maintenance of Records 161
  - Types of Records Maintained 162
  - Maintenance of Records by Type of Setting in Various Countries 162
- Charging Fees to Families With Children Enrolled in Early Childhood Programs 164
  - Basic Information About the Charging of Fees 164
  - Variation in Fees for Different Reasons 166
  - Charging of Additional Fees 168
- Staffing Profiles for the Various Types of Settings in Each Nation 169
  - Belgium (Fr.—Liège Province, Brussels) 169
  - China (PRC, 6 provinces) 170
  - Finland 171
  - Greece (urban) 171
  - Hong Kong (SAR) 172
  - Indonesia (Java) 173
  - Ireland 173
  - Italy 174
  - Nigeria (3 states) 175
  - Poland 176
  - Romania 177
  - Spain (Catalonia) 178
  - Thailand 178
  - United States (6 sites) 179
- Discussion 180
- Summary Statements 182

VI. PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS,
Patricia P. Olmsted, Jill Claxton, Mikko Ojala, and Sherri Oden 185
Patterns of Operation 186
    Belgium (Fr.—Liège Province, Brussels) 186
    China (PRC, 6 provinces) 187
    Finland 188
    Greece (urban) 189
    Hong Kong (SAR) 190
    Indonesia (Java) 190
    Ireland 191
    Italy 192
    Nigeria (3 states) 192
    Poland 193
    Romania 194
    Slovenia 195
    Spain (Catalonia) 195
    Thailand 196
    United States (6 sites) 197
Group Sizes and Staff-Child Ratios 198
    Group Sizes 198
    Staff-Child Ratios 200
Discussion 206
    Patterns of Operation 206
    Group Sizes and Staff-Child Ratios 207
Summary Statements 208

VII. PHYSICAL CHARACTERISTICS OF EARLY CHILDHOOD SETTINGS,
Patricia P. Olmsted, Mikko Ojala, and Sherri Oden 209
Number and Characteristics of Rooms Used by a Group of Children in Early Childhood Settings 210
    Number of Rooms Used 210
    Characteristics of Rooms in Early Childhood Settings 212
Space Usage and Space per Child in Early Childhood Settings 216
    Amount of Space Used 218
    Amount of Space per Child 220
Characteristics of Play Areas in Early Childhood Settings 220
    Availability of Outdoor Play Areas 221
    Location of Outdoor Play Areas 223
    Frequency of Use of Outdoor Play Areas 223
    Size of Outdoor Play Areas 227
    Availability of Indoor Play Areas 229

Equipment and Materials 229
    Percentage of Settings With at Least One Kind of Item per Category 231
    Average Numbers of Different Kinds of Items for Different Types of Settings 231
    A Look at the Findings by Type of Setting 235
Discussion 237
    Number and Characteristics of Rooms 237
    Space per Child in Early Childhood Settings 238
    Characteristics of Play Areas 238
    Equipment and Materials 239
Summary Statements 240

VIII. SUPPORT SERVICES, OUTSIDE RESOURCES, AND HOME-SETTING CONTACT, *Patricia P. Olmsted, Sylvia Opper, and Jill Claxton 241*
Availability of Support Services 242
    Findings by Kind of Support Service 242
    Availability of Support Services in Various Countries 247
Use of Outside Resources 248
    General Use of Outside Resources 248
    Specific Findings on Use of Outside Resources 250
Frequency of Home-Setting Contact 252
    Cross-National Findings 253
    Findings for Individual Countries 255
Discussion 257
    Availability of Support Services 257
    Use of Outside Resources 258
Forms of Home-Setting Contact 259
Summary Statements 260

IX. CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS IN EARLY CHILDHOOD SETTINGS, *Patricia P. Olmsted, Mikko Ojala, and Nittaya Passornsiri 261*
General Characteristics 261
    Age 261
    Gender 262
    Years of Full-Time Education 263
Teacher Training 265
Teacher Certification 267
Years of Experience 268
Years Employed in Present Setting 268
Discussion 268
    Age 269
    Gender 269
    Years of Full-Time Education 269

Teacher Training 270
Teacher Certification 271
Years of Experience 271
Years Employed in Present Setting 271
Summary Statements 272

X. STRUCTURAL CHARACTERISTICS OF FAMILY DAY CARE HOMES IN FINLAND AND THE UNITED STATES, *Jill Claxton* 273
Background Information 274
National Child Care Policy in Finland and the United States 276
Methodology 276
Sample of Family Day Care Homes 276
Small-Group Provider Survey 278
Management Policies and Staffing 278
Licensing/Certification 278
Supervision by Licensing Body 279
Maintenance of Records 280
Fees 281
Patterns of Operation, Enrollment, Group Size, and Staffing Ratio 281
Patterns of Operation 281
Enrollment, Group Size, and Staffing Ratio 282
Physical Characteristics of Family Day Care Settings 283
Room Usage, Space Usage, and Space per Child 283
Characteristics of Outdoor Play Areas 284
Materials and Equipment 284
Support Services, Outside Resources, and Home-Setting Contact 286
Support Services 286
Outside Resources 286
Home-Setting Contact 287
Characteristics of Family Day Care Providers 288
Summary Statements 289

SUMMARY AND IMPLICATIONS

XI. CLOSING THOUGHTS, *Jeanne Montie and Patricia P. Olmsted* 293
Management Policies 294
Sponsorship 294
Licensing/Certification 295
Fees 295
Patterns of Operation 295
Operating Hours 295
Group Sizes and Staff-Child Ratios 296

Physical Characteristics 297
Support Services 299
    Support Services 299
    Outside Resources 300
    Parent Involvement 300
Characteristics of Teachers and Caregivers 300
Family Day Care 302
In Conclusion 303

Appendix A: Organized Facility/Group Setting Provider Survey 305
Appendix B: Non-Group/Small-Group Setting Provider Survey 325
Appendix C: Supplementary Tables for Chapter 5 337
Appendix D: Supplementary Tables for Chapter 6 341
Appendix E: Supplementary Tables for Chapter 8 345
Appendix F: IEA Preprimary Project Phase 2 National Research Centers and Coordinators 355
References 357

TABLES

2.1 Space recommendations for preschool child care environments 28

2.2 Support services provided by early education and care programs in the United States 35

2.3 Percentage of parent involvement in preprimary settings in the United States by type of setting 39

2.4 Education and training of teachers in center-based programs in the United States by type of program 45

2.5 Percentage of Annual staff turnover in the United States by program auspice 50

4.1 Major topics covered in Provider Survey instruments for group settings and family day care homes 119

4.2 Number of settings and children/families from various types of settings in Phase 2 of the IEA Preprimary Project 121

5.1 Percentage of settings with various major categories of sponsors 141

5.2 Percentage of settings having 1, 2, or 3 sponsors 144

5.3 Percentage of settings with the government as a sponsor 146

5.4 Percentage of early childhood settings in different stages of licensing/certification 150

5.5 Percentage of licensed/certified early childhood settings having that status for different numbers of years 153

5.6 Percentage of licensed/certified early childhood settings according to types of licensing agencies 155

5.7 Percentage of early childhood settings with licensing reviewed and frequency of review 157

5.8 Percentage of early childhood settings with licensing supervised and frequency of supervision 158

5.9 Percentage of settings (≥50%) using various admissions criteria 160

5.10 Percentage of settings (≥50%) maintaining various types of records 163

5.11 Percentage of early childhood settings charging fees to families 165

5.12 Percentage of early childhood settings (≥50%) varying fees for different reasons 167

5.13 Percentage of early childhood settings charging additional fees 168

5.14 Staffing for a typical setting of each type in Belgium 169

5.15 Staffing for a typical setting of each type in China 170

5.16 Staffing for a typical child care center in Finland 171

5.17 Staffing for a typical setting of each type in Greece 172

5.18 Staffing for a typical setting of each type in Hong Kong 172

5.19 Staffing for a typical setting of each type in Indonesia 173

5.20 Staffing for a typical setting of each type in Ireland 174

5.21 Staffing for a typical preprimary school in Italy 175
5.22 Staffing for a typical setting of each type in Nigeria 175
5.23 Staffing for a typical setting of each type in Poland 176
5.24 Staffing for a typical setting of each type in Romania 177
5.25 Staffing for a typical setting of each type in Spain 178
5.26 Staffing for a typical setting of each type in Thailand 179
5.27 Staffing for a typical setting of each type in the United States 179
6.1 Patterns of operation in settings in Belgium 187
6.2 Patterns of operation in settings in China 187
6.3 Patterns of operation in child care centers in Finland 189
6.4 Patterns of operation in settings in Greece 189
6.5 Patterns of operation in settings in Hong Kong 190
6.6 Patterns of operation in settings in Indonesia 191
6.7 Patterns of operation in settings in Ireland 191
6.8 Patterns of operation in preprimary schools in Italy 192
6.9 Patterns of operation in settings in Nigeria 193
6.10 Patterns of operation in settings in Poland 194
6.11 Patterns of operation in settings in Romania 194
6.12 Patterns of operation in kindergartens in Slovenia 195
6.13 Patterns of operation in settings in Spain 196
6.14 Patterns of operation in settings in Thailand 196
6.15 Patterns of operation in settings in the United States 197
6.16 Group size by type of early childhood setting 199
6.17 Percentage of settings having different numbers of adults in the classroom during the morning 202
6.18 Median group size, percentage of classrooms (≥20%) having different numbers of adults, and median staff-child ratio for each type of setting 203
6.19 Staff-child ratio by type of early childhood setting 204
7.1 Number of rooms used by a group of children 211
7.2 Settings with a room structured for children by type of early childhood setting 214
7.3 Settings with a room for adult use by type of early childhood setting 217
7.4 Amount of space and space per child by type of early childhood setting 219
7.5 Outdoor areas available for play by type of early childhood setting 222

7.6 Percentage of outdoor play areas in various locations 224
7.7 Percentage of settings with different frequencies of usage of outdoor play areas 226
7.8 Median size of outdoor play areas for various types of settings 228
7.9 Percentage of settings with indoor play area available 230
7.10 Equipment and materials in early childhood settings 232–234
8.1 Percentage of settings (≥50%) with various kinds of support services available 243–246
8.2 Percentage of settings using one or more types of outside resources 249
8.3 Percentage of settings (≥50%) using various categories of outside resources 251
9.1 Age and gender characteristics of teachers 262
9.2 Educational characteristics of teachers 264
9.3 Training, certification, and experience of teachers 266
10.1 Licensing/certification and licensing review in family day care homes 279
10.2 Percentage of family day care homes having various licensing criteria 279
10.3 Percentage of family day care homes supervised and frequency of supervision 280
10.4 Number and age-range of children family day care homes are licensed to serve 280
10.5 Percentage of family day care homes maintaining various kinds of records 281
10.6 Percentage of family day care homes receiving payment for child care and percentage of parental financial assistance 281
10.7 Amount of time family day care services are available and children are in care 282
10.8 Group size and staff-child ratio in family day care homes 283
10.9 Size of family day care homes, rooms available and used 283
10.10 Space characteristics of family day care homes 284
10.11 Characteristics of outdoor play areas in family day care settings 285
10.12 Equipment and materials in family day care homes 285
10.13 Percentage of family day care homes offering various support services 286
10.14 Percentage of family day care homes using outside resources 287
10.15 Percentage of family day care providers reporting the use of different types of home-setting contact with varying frequency 287
10.16 Characteristics of family day care providers 288
C.1 Percentage of settings using various admissions criteria 338
C.2 Percentage of settings maintaining various types of records 339
C.3 Percentage of early childhood settings charging varying fees for different reasons 340
D.1 Percentage of settings open each day of the week 342

D.2 Percentage of settings that have children present for varying numbers of hours during a typical day 343

D.3 Number of weeks per year services are available in various types of early childhood settings 344

E.1 Percentage of settings with various kinds of support services available 346–350

E.2 Percentage of settings using various categories of outside resources 351

E.3 Percentage of teachers reporting the use of different types of home-setting contact 352–354

FIGURES

1.1 Conceptual framework of Phase 2 of the IEA Preprimary Project 9
2.1 Approaches to training in early childhood care and education 44
5.1 Percentage of settings with various categories of sponsors 142
5.2 Percentage of settings with the government as a sponsor 147
5.3 Percentage of early childhood settings in different stages of licensing/certification 152
6.1 Range and median for group sizes by type of early childhood setting 200
6.2 Range and median for staff-child ratios by type of early childhood setting 205
7.1 Median number of rooms used by a group of children 212
7.2 Percentage of settings with rooms structured for children 215
7.3 Percentage of settings with a room available for adult use 218
7.4 Estimated space per child by type of setting 221
7.5 Estimate of overall availability of equipment and materials 236
8.1 Number of support services in 50% or more of each type of setting 247
8.2 Types of home-setting contact used with different frequencies by teachers/caregivers 254
10.1 Licensing regulations for family child care homes in four states in the United States 277

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PREFACE

This publication is the second of four monographs reporting the findings of Phase 2 of the IEA Preprimary Project. The Phase 2 monographs present a detailed look at the quality of preschool-aged children's experiences in 15 countries. The initial phase of this three-phase international project produced two earlier publications: *How Nations Serve Young Children* (Olmsted & Weikart, 1989), which used information from public records to create profiles of early childhood care and education in 14 countries, and *Families Speak* (Olmsted & Weikart, 1994), which used data from household surveys to describe the early childhood care and education situations in 11 of these 14 countries.

Phase 2 researchers collected "quality of life" information of four types: (1) data on teacher and parent views about the importance of various areas of development for 4-year-olds; (2) data on the physical characteristics of children's early childhood settings; (3) data on the activities and interactions of children, as well as the behaviors of adults, in early childhood settings; and (4) data on the status of the 4-year-olds' cognitive development, language development, fine-motor skills, social competence, and preacademic skills. The first Phase 2 monograph, *What Should Young Children Learn?* (Weikart, 1999) reported on the findings derived from the first of these four types of data; the present monograph reports findings about the second type of data, physical characteristics of settings.

Readers are encouraged to use this monograph as a reference or handbook; with that in mind, we have arranged the material into five sections for ease of use. The first section presents the background and conceptual framework of the study, followed by a review of the literature, which provides the context in which the study took place. The second section contains individual national profiles of structural characteristics in early childhood settings. Information in these profiles was collected from statistical data and research studies available at the time of Phase 2 data collection and represents what was known about structural characteristics in the participating countries at that time. The profiles are presented in a common format to make locating information and cross-referencing as easy as possible. The third section of this monograph presents the methodology of Phase 2 data collection, and the fourth section discusses the findings from the Phase 2 data collection. In a final section, we integrate information from the literature review, the profiles, and the findings and offer issues for providers and policymakers to consider.

In a publication that presents such a wealth of information, much of it statistical, it is quite possible to become lost in the details. To prevent this, we have tried to make it easy to locate pertinent information. Throughout the monograph we have used five broad topic areas: (1) management policies, (2) patterns of operation, (3) physical characteristics, (4) additional services, and (5) teacher characteristics. Thus, readers will find similar topic areas in different sections of the monograph by looking for the subheadings. In the chapters presenting the study findings, both tables and graphs are used to present data. The tables provide detailed information on a variety of topics, while the graphics highlight important findings by aggregating large amounts of data and presenting them in a format that is easy to comprehend. Finally, we are delighted to be able to include in this monograph photographs that illustrate the importance of structural characteristics. The photographs have been provided by each of the 15 countries participating in the study and portray the diversity and vitality of early childhood settings in ways that statistics cannot.

People often wonder how specific countries come to be involved in a study such as the IEA Preprimary Project. Any nation interested in cross-national educational studies may join IEA and then participate in decision making about the study projects to be undertaken by the organization. Once a project proposal has been officially approved by the IEA General Assembly, any member country can then choose whether to participate in the given study. However, since IEA may be conducting several studies simultaneously, member countries generally participate only in those most relevant to their national needs and goals. Thus, the countries participating in Phase 2 of the IEA Preprimary Project do not constitute the entire set of IEA member countries.

A particular strength of this study is that its participating countries provide variety on a number of dimensions, including form of government, population, and state of development. In general, the participating countries are ones that do not have extremely high infant mortality rates and thus have been able to move from concerns about child survival to concerns about providing adequate education and care services for their young children.

Another strength of the study is that it was conducted with the significant cooperation and contributions of early childhood researchers around the world. Each participating country set up its own coordination center for the study, usually within a university or government agency (e.g., an education ministry). This coordinating center, under the direction of a national research coordinator, procured necessary financial support; ensured that all instruments were appropriate for the children and families in that country; and supervised the sampling, data collection, and data processing. At all stages of the Phase 2 study, including the writing of this monograph, the national research coordinators and their staffs worked closely with the project's International Coordinating Center in the United States, the High/Scope Educational Research Foundation in Ypsilanti, Michigan.

In connection with Phase 2, the High/Scope Foundation has produced a series of videotapes of early childhood care and education settings in the countries participating in the study. These videotapes portray typical settings in each country and can assist readers of the Phase 2 monographs by bringing to life the findings reported in the tables and figures. In Phase 3 of the IEA Preprimary Project, 12 of the 15 countries participating in Phase 2 collected data on the Phase 2 children at 7 years of age. The Phase 3 findings will be published in a final monograph summarizing the entire study.

Jeanne Montie
Patricia Olmsted
August 2001

A WORD ABOUT IEA

"IEA" is the acronym for the International Association for the Evaluation of Educational Achievement, a nongovernmental, nonprofit organization of research institutions in more than 50 countries that is well known for its 30 years of comparative international surveys in science, mathematics, written composition, and other academic areas. IEA research projects have been instrumental in demonstrating the feasibility of large-scale cross-national empirical studies and in advancing the methodology of comparative education.

IEA views its comparative educational surveys as a necessary first step in both national and international policy-related research. IEA findings have affected educational systems around the world as specific educational problems have been identified and policymakers have made decisions based on these research findings. Some of the international educational issues IEA has chosen to examine include identifying the effects of different practices in grouping or tracking students, investigating the effects of comprehensive secondary schooling, and examining the effects of specific instructional practices.

Additional information about IEA can be obtained from

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EARLY CHILDHOOD SETTINGS IN 15 COUNTRIES

GENERAL INFORMATION

I

THE STUDY BACKGROUND

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The present report on the structural characteristics of early childhood settings is the second of four monographs that present findings from Phase 2 of a preprimary study being conducted in 15 countries. The study, sponsored by the International Association for the Evaluation of Educational Achievement (IEA), is known as the IEA Preprimary Project (IEA/PPP); it is the association's first cross-national investigation into the care/education experiences of children before they enter the formal educational system. As Marcel Crahay, who headed the steering committee that launched the project, noted in a 1994 report on Phase 1 of the project,

> The impetus for such [preprimary] research consists largely of two trends that emerged and converged during the 1960s and 1970s in most IEA member countries, namely:
>
> 1. Increasing acceptance of the proposition that early life experiences make a strong and probably enduring contribution to all subsequent development
> 2. Increasing incidence of families sharing the care and education of their preschool-aged children with others outside the home—a phenomenon that is variously attributed to social, economic, and demographic changes worldwide
>
> When considering these two trends together, one must keep in mind the probability that the greater the contribution of early experiences to the total development of an individual and of society, the greater the benefits that can accrue to them from *good-quality* early experiences and, by the same token, the greater the harm that can be done to them (the individual and society) by poor-quality early experiences. Therefore, any investigation, like the IEA Preprimary Project, that can illuminate the nature and effects of various kinds of early childhood experiences on the long-term development of young children is a welcome addition to existing knowledge. (Olmsted & Weikart, 1994, pp. 3–4)

AN OVERVIEW OF THE IEA PREPRIMARY PROJECT

Initially, the IEA/PPP was designed to have only two phases. It would (1) study the quality of life of preprimary children in out-of-home environments specially provided for them (such as preschools or child care centers) and (2) assess how those environments contribute to their current and subsequent development. However, it soon became evident to the project planning team that several key decisions needed to be made.

First, since out-of-home environments may be different for children of various ages, a specific age-range needed to be decided upon for the study. The team decided to focus on 4-year-old children, the age of most children in IEA member countries before entry into a formal school environment; this is also the age-range for which there is the widest variety of early childhood care and education settings. Also, since most countries had little information about the "major" types of early childhood care and education settings available for young children, the planning team proposed that another preliminary phase be added to the study—a household survey to determine the various types of early childhood services that families use. In addition, the planning team broadened the focus of the study to include both in-home and out-of-home settings, thus encompassing informal care and education settings (care by relatives, friends, or neighbors) as well as formal settings (preschools, nursery schools, child care centers).

The final operational plan for the Preprimary Project included three interrelated phases:

- *Phase 1*—a household survey to identify and characterize the major early childhood care and education settings used by families with 4-year-old children
- *Phase 2*—a study of the quality of life for 4-year-old children in the major early childhood settings, one that also explores, in terms of five groups of variables, the impact of programmatic and familial factors on children's developmental status at age 4 (Structural characteristics of settings—the subject of this monograph—are among the variables studied.)
- *Phase 3*—a follow-up study to document how preprimary experiences affect children's development and school progress at age 7

PARTICIPATING COUNTRIES

In all, 17 countries have participated to date in one or more phases of the Preprimary Project. The countries and the phases in which each participated are as follows:

Belgium (French) (Phases 1 & 2)
China (People's Republic) (Phases 1 & 2)
Finland (all phases)
Germany (Federal Republic) (Phase 1)
Greece (Phases 2 & 3)
Hong Kong (all phases)
Indonesia (Phases 2 & 3)
Ireland (Phases 2 & 3)
Italy (all phases)
Nigeria (all phases)
Poland (Phases 2 & 3)
Portugal (Phase 1)
Romania (Phases 2 & 3)
Slovenia (Phases 2 & 3)
Spain (all phases)
Thailand (all phases)
United States (all phases)

Note that the project includes countries on four continents (Africa, Asia, Europe, North America) and both developed and developing nations (by World Bank criteria, China, Indonesia, Nigeria, Poland, Romania, and Thailand are considered "developing"). Phases 2 and 3 of the project have drawn in several eastern European nations that have recently undergone major economic and social changes. Overall, the participating countries are of various sizes, have diverse political philosophies, and represent different degrees of industrialization. Clearly, a cross-national study with such participants offers a unique opportunity to examine a wider range of variation in care and education settings than can be found within any single country. It also allows global investigations of relationships between the use of early childhood services and the effects of those services on the lives of children and families.

STATUS OF THE PROJECT

Phase 1 of the Preprimary Project—the household survey to determine use of early childhood services—is complete. The survey findings are reported in *Families Speak: Early Childhood Care and Education in 11 Countries* (Olmsted & Weikart, 1994). Also, as the preliminary activity of Phase 1, research teams in the participating countries prepared national profiles of early childhood care and education that were based on official statistics. These profiles are presented in *How Nations Serve Young Children: Profiles of Child Care and Education in 14 Countries* (Olmsted & Weikart, 1989).

Results of the Phase 2 data collection are to be presented in a series of four monographs, of which the present one on structural characteristics is the second. The first monograph, *What Should Young Children Learn? Teacher and Parent Views in 15 Countries* (Weikart, 1999), presented findings on teacher/parent expectations for young children. Each monograph will include discussions of the conceptual framework, instruments, and data collection procedures of Phase 2; each one focuses in detail on findings from one major aspect of the study; and each incorporates pertinent findings from earlier Phase 2 monographs.

At this writing, the data collection for Phase 3 has been completed. The Phase 3 publication will report the findings of the age-7 follow-up study and relate the age-7 findings to the preprimary experiences of the children studied in Phase 2.

PHASE 2 OF THE PREPRIMARY PROJECT

CONCEPTUAL FRAMEWORK

To see where our research on the structural characteristics of early childhood settings fits into the overall picture, it is necessary to understand the conceptual framework of Phase 2 of the IEA/PPP. The framework is based on the ecological model of development set forth by Bronfenbrenner (1979; 1989), which recognizes the complex interplay not only between humans and the environment but also among various environmental factors.

Bronfenbrenner's ecological systems theory is particularly relevant to understanding the impact of structural characteristics and the factors that shape them. In Bronfenbrenner's theory, the environment is conceptualized as having several levels, all of which impact directly or indirectly on the developing child. The levels, which are outlined below, can be thought of as varying from the most proximal to the most distal in relationship to the child. The most proximal level, which comprises the child's daily experiences, is the *microsystem*, the "pattern of activities, roles, and interpersonal relations experienced by [a child] in a given face-to-face setting with particular physical and material features . . ." (Bronfenbrenner, 1989, p. 227). The *mesosystem* consists of the "linkages and processes taking place between two or more settings containing [the child]. . ." (p. 227), for example, communication between the child's home and the child's care setting. The *exosystem* consists of the linkages between two or more settings, at least one of which does not contain the child, for example, the child's home and the parent's workplace. The *macrosystem* is the most distal to the child and consists of the "overarching pattern of micro-, meso-, and exosystems characteristic of a given culture, subculture, or other broader social context . . ." (p. 228).

During outdoor play children in Romania form a train.

Findings from the IEA Phase 2 study are relevant to both the microsystems and the mesosystems affecting preprimary children. The IEA study draws on ecological and cross-cultural perspectives to explore the interplay among the following five major groups of variables (those variables in boldface are the focus of this monograph):

- *Family characteristics*—household composition, parental education and occupation, parental expectations (beliefs about the relative importance of various areas of development for 4-year-olds)
- ***Setting characteristics*—teacher education and experience, equipment and materials, group size, and staffing ratio**
- *Teacher characteristics*—expectations (beliefs about the relative importance of various areas of development for 4-year-olds), management of children's time, behaviors/interactions with children
- *Children's behaviors*—activities engaged in at the setting, involvement with other children, involvement with adults
- *Child developmental status*—cognitive development, language development, preacademic skills

This set of variables is not only comprehensive but also basic to a "process model of research" (Crahay, 1990). The process model seeks to understand not just *whether* but, more important, *how* early experiences influence children's short- and long-term development. Figure 1.1 presents a diagram of the Phase 2 conceptual framework developed by Marcel Crahay, who chaired the international steering committee for the IEA Preprimary Project from 1985 to 1993. The diagram includes the five major groups of Phase 2 variables just listed, and the shaded portion of the diagram indicates setting characteristics, the portion of Phase 2 that is addressed in this monograph.

OVERVIEW OF MEASURES, SAMPLING, AND DATA COLLECTION

Measures

During development of the conceptual framework, the project steering committee and the 15 research coordinators from the participating countries discussed specific areas of measurement for each of the major groups of variables within the conceptual model. They formed five subgroups to examine existing instruments in each area and to develop the measures for the Phase 2 study. The research coordinators from Belgium, China (PRC), Hong Kong, Nigeria, and Spain chaired the five subgroups,

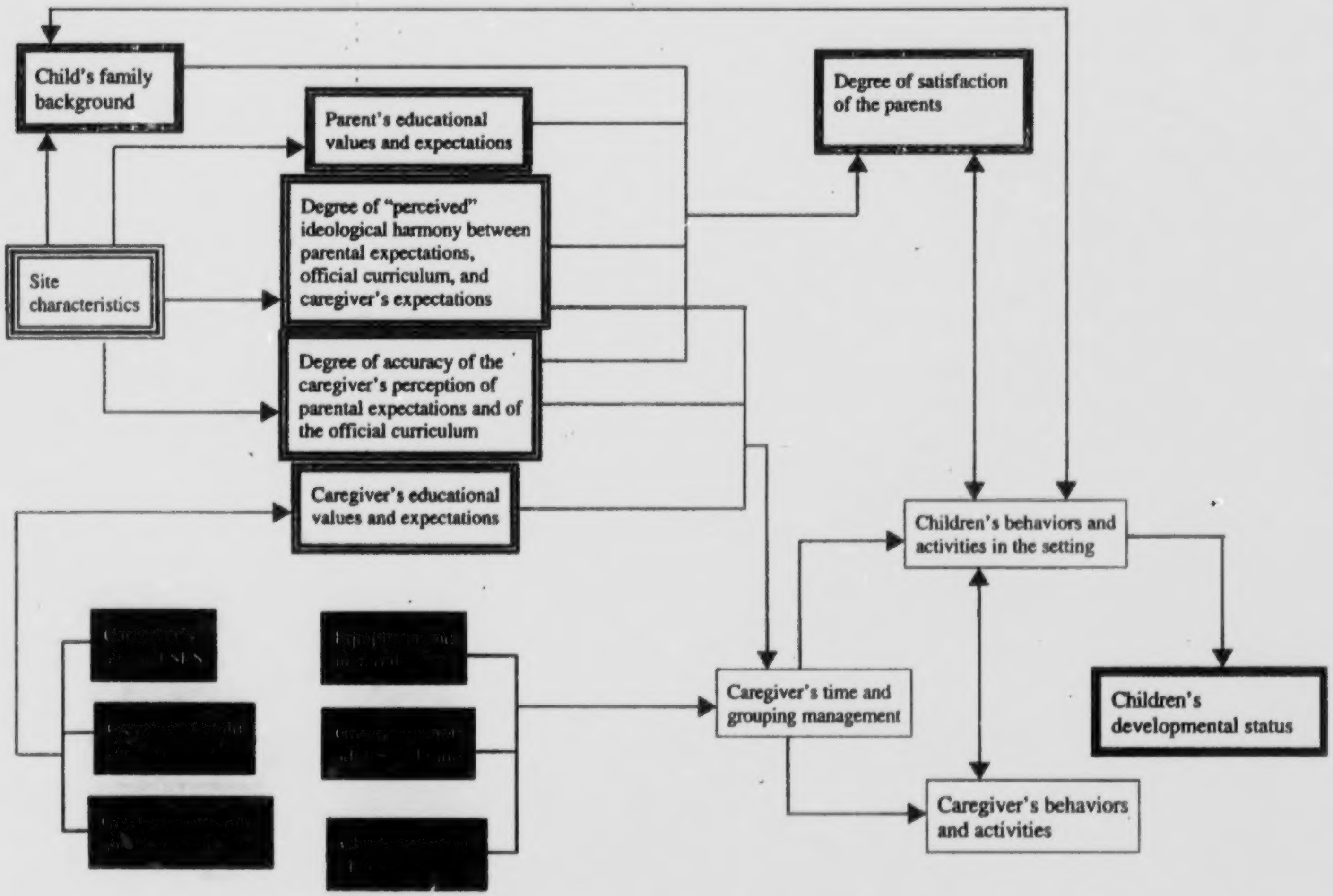
Child's family background
Parent's educational values and expectations
Degree of satisfaction of the parents
Degree of "perceived" ideological harmony between parental expectations, official curriculum, and caregiver's expectations
Site characteristics
Degree of accuracy of the caregiver's perception of parental expectations and of the official curriculum
Caregiver's educational values and expectations
Children's behaviors and activities in the setting
Caregiver's time and grouping management
Children's developmental status
Caregiver's behaviors and activities

Figure 1.1 Conceptual framework of Phase 2 of the IEA Preprimary Project

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and each of the 15 Phase 2 national research coordinators was a member of two or three of those subgroups. This instrument development took place between 1988 and 1991 and included two rounds of pilot-testing in each country.

Sampling

For the Phase 2 study, each participating country selected two or more types of early childhood settings (e.g., public kindergartens, private kindergartens) that were either used by large numbers of families or important for public policy reasons. The major sampling guidelines were that (1) whenever possible, for any specific type of setting, the number of settings selected should reflect the frequency with which 4-year-olds use that type of setting; (2) to achieve sufficient sample sizes for national-level multivariate analysis at the end of Phase 3 of the Preprimary Project, a minimum sample of 96 children should be selected from each type of setting; and (3) a maximum of 4 children should be randomly selected from each group setting, resulting in at least 24 settings representing each type of early childhood program included in the study.

Data collection

The Phase 2 data collection consisted of the following:

- In each early childhood setting selected for the study, observers used three observation systems to collect data on two nonconsecutive mornings.
- The teacher/caregiver in each selected setting completed two contextual questionnaires, one concerning structural characteristics of the setting and one concerning teachers' beliefs about important areas of development for preschool-aged children.
- Data collectors administered two to five child developmental status measures to each child and administered two contextual questionnaires to the parents, one concerning the family background and one concerning parents' beliefs about important areas of development for preschool-aged children.

A GUIDE TO READING THE MONOGRAPH

This monograph is divided into five sections. Section I provides a general introduction to the IEA/PPP's philosophy as well as information from the research literature about structural characteristics, the subject of this monograph.

In Section II we present brief descriptive profiles of early childhood care and education for each of the countries included in this monograph. The profiles report on the structural characteristics of early childhood settings and focus primarily on the status of settings serving 4-year-old children at the time of Phase 2 data collection. Information for the profiles was gathered from public documents and reports and does not include findings from the Provider Survey.

Section III describes the study's methodology, including additional information about the instruments, sampling, and data collection for Phase 2, as well as a description of each country's sampling plan and data collection procedures. This section also includes a detailed description of the development of the Provider Survey questionnaire, the instrument used to collect the data on the setting characteristics.

Section IV, Chapters 5 through 10, reports the results from the Provider Survey administered to the settings sampled in each country. Chapter 5 examines the management policies and staffing; Chapter 6 presents findings related to patterns of operation, group size, and staff-child ratios. Physical characteristics of settings are described in Chapter 7, followed by Chapter 8, which presents the findings regarding ancillary (support) services and parent involvement. Chapter 9 reports findings related to teacher characteristics, such as years of experience and educational background. Chapter 10 presents data collected by only two countries—Finland and the United States—on structural characteristics of family day care homes.

The final section, Chapter 11, presents a summary of the cross-national findings. We examine the findings in the context of the research literature and discuss the implications of these findings for future policymaking in the area of early childhood education and care.

Children in a public kindergarten in Catalonia (Spain) play with large construction toys.

II

STRUCTURAL CHARACTERISTICS OF EARLY CHILDHOOD SETTINGS: A REVIEW OF THE LITERATURE

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During the latter half of the twentieth century, the demand for early childhood education and care escalated enormously in both industrialized and developing countries around the world. This increase in demand has been fueled by two trends: an increase in the number of women with young children employed outside the home, and a growing awareness that the development of children's cognitive and social skills during the early years—a critical time for such development—can be fostered by participation in an early childhood program. As preprimary group settings have proliferated around the world, researchers and governing agencies have increasingly devoted their attention to examining these settings and identifying those characteristics that lead to the most effective practices.

The present volume presents descriptive data about structural characteristics in widely diverse preprimary settings around the world. This chapter provides a context for that information by examining findings from the early education and child care literature related to selected structural characteristics.

The examination of structural characteristics in early education and care settings is important for both practical and theoretical reasons. Structural characteristics are of practical importance because most are easy to measure and thus serve as standards that can be monitored. Historically, minimum standards in child care and education settings have been based on such structural characteristics as group size, staff-child ratio, and teacher training. These characteristics can be measured objectively and therefore are more easily monitored by regulatory agencies than more subjective characteristics, such as the dynamics of the interaction between teacher and child. Structural features, particularly group size and staff-child ratio, actually provide the foundation for these dynamics (Love, Schochet,

& Meckstroth, 1996). In addition to being used to establish minimum standards, structural characteristics serve as benchmarks in establishing the highest professional standards in the field of early care and education (National Academy of Early Childhood Programs, 1991). Structural characteristics, especially those related to the safety and appearance of the setting, are also used by parents to evaluate settings, as physical features such as room arrangement and materials are often the most obvious characteristics noticed by parents visiting settings.

In addition to having practical implications, structural characteristics are of theoretical importance because theory-based research has found many structural characteristics to be related to setting quality and child behaviors. The theoretical importance of structural characteristics has become more widely recognized as research over the past 2 decades has established important links among structural characteristics, setting quality, and children's behaviors (Cost, Quality, and Child Outcomes Study Team, 1995; NICHD Early Child Care Research Network, 1999; Ruopp, Travers, Glantz, & Coelen, 1979; Whitebook, Howes, & Phillips, 1989). Theorists such as Piaget and Bronfenbrenner have stressed the interaction between the child and his or her environment and the importance of this interaction to the process of development. Structural features can serve as important guidelines in understanding the mechanisms that underlie theories of child development and early learning.

This chapter presents a brief review of what is known from the research literature about the structural characteristics selected for study in Phase 2 of the IEA Preprimary Project. In the following sections we discuss five broad categories of structural characteristics of center-based early childhood settings: national policy, patterns of operation, physical characteristics, support services, and teacher characteristics.

It is important to note at the outset that findings from research based in child care and education settings are often difficult to interpret. Most of the research in the field is affected by one or more of the following conditions, which in turn can impact the findings and their interpretation.

- *Selection bias:* Almost all of the research has taken place in preprimary settings that have been self-selected by parents and teachers, with the result that family and teacher background characteristics are often confounded with findings. Increasingly, researchers, especially in large multisite studies, are attempting to control for such factors.
- *Cultural bias:* In an international review such as this one, it is essential to remember that different cultures have different desired outcomes for their preprimary programs and varied definitions of a high-quality program. This may also be true within a country that has a wide variety of setting types. Most of the research reviewed comes from western industrialized nations and may not accurately reflect the values and concerns of developing nations.
- *Correlations among variables:* In studies of structural characteristics, there is generally a high degree of intercorrelation among variables. That is, favorable staff-child ratios, group sizes, levels of teacher education, and physical characteristics tend to occur together. It is difficult to tease apart the effects of any one of these variables from the others, although some researchers do make an attempt to do so (see Arnett, 1989).
- *Curriculum effects:* Most studies overlook the interaction of curriculum with structural variables. It is possible that structural characteristics may produce different effects when different curricula are used, but more research is needed in this area before firm conclusions can be drawn (Schweinhart & Weikart, 1997).

The following review presents an overview of research on structural characteristics of early childhood programs. It is not intended to be comprehensive. For more in-depth study, throughout the chapter readers are referred to specific reviews.

NATIONAL EARLY CHILDHOOD POLICY

Early childhood care and education policy encompasses a range of government actions and responsibilities, including direct delivery of child care and education services, direct and indirect financial subsidies to private providers of care, financial subsidies to parents, and establishment and enforcement of regulations (Kamerman, 1991). National policy regarding the provision and regulation of services to preprimary children is closely tied to the history, traditions, and politics of a country. The framework developed by Cochran (1993, 1997), on the basis of a review and analysis of preprimary policies and programs in 29 countries, is helpful in understanding the relationship between cultural context and a country's policies and practices in early childhood care and education.

According to Cochran's framework, a country's policies and programs are shaped by historical changes, such as urbanization and industrialization, as well as present-day societal needs and factors, such as birth rates and the extent of maternal employment outside the home. Mediating influences such as cultural traditions, religious beliefs, and political ideologies operate as filters, promoting some policies and programs and screening out others. In a developing country that values the extended family and mutual assistance, for example, group programs may emerge as the preferred method of care and education; in a country with strong nuclear family values, group care may be considered inappropriate. While recognizing that ideological, demographic, and historical forces all play a part in determining a country's child care practices and policies, Lamb and Sternberg (1992) contend that economic circumstances are the driving force in the development of nonparental care in early childhood. Although the relative influence of various factors may be the subject of debate, it is clear that policies and practices related to early childhood care and education evolve as a result of the complex interaction among the forces of history, tradition, economics, and politics.

GOVERNMENT SUPPORT OF PREPRIMARY PROGRAMS

As Cochran points out, national policy begins with basic decisions about the extent of government support of preprimary services. Among both developed and developing countries there is considerable variation in the extent to which preprimary child care and education is viewed as a public responsibility rather than a family responsibility. As a result, there is variation in the extent of national commitment to preprimary care and education. Many countries, for example, Nigeria and Indonesia, provide little or no public early education and child care, while the goal of others, notably Scandinavian and many other western European countries, is to provide preprimary care and education to all who need it. In most countries there is a distinction between child care and early education. Governments may recognize the need to subsidize care for disadvantaged children or for children of working parents; however, they may not recognize a need for preprimary educational institutions.

Kamerman (1991) states that "universal preschool for children . . . has clearly emerged as the policy choice of the advanced industrialized countries" (p. 181). However, even among industrialized nations there are great differences in the extent of public provision of early childhood care and education. While western European child care policy moves toward the establishment of preprimary services as an entitlement (European Commission Network on Childcare, 1996; Phillips & Moss, 1989), in the United States, publicly sponsored preprimary education is limited chiefly to children from low-income families; privately sponsored programs, both nonprofit and for-profit, supply the largest proportion of care and education. In many countries, particularly in Africa and Latin America, care and education programs for preschool children are scarce and the government remains largely uninvolved. However, according to Cochran, the absence of an official child care policy in a country does not necessarily reflect a lack of need but possibly the influence of mediating factors, such as religious beliefs that place value on women and preschool children remaining in the home.

If a government makes a commitment to provide public preprimary services, a decision must then be made regarding which government ministry, department, or agency will oversee its implementation. Differences among countries regarding the basic objectives of early childhood programs are often linked to the government structures responsible for overseeing such programs (Broberg & Hwang, 1992). For example, in countries that seek to promote cognitive development in the early years, the ministry of education is likely to be responsible for early childhood policy and programming. However, in countries where basic health care is inadequate, ministries of health and welfare are more likely to administer early childhood programs.

The prevalent model in European countries is for the government to operate kindergartens and nursery schools under educational auspices as part of the public education system or to provide public subsidies to private nonprofit programs (Kamerman, 1991). Notable exceptions are Sweden and Finland, where child care programs have traditionally operated under social welfare auspices. In many countries, both developed and developing, a two-part system has evolved over time: the government sponsors social welfare programs of a primarily custodial nature for the poor, while the middle and upper classes take advantage of privately sponsored programs that emphasize learning and enrichment (Myers, 1995).

Preprimary services overseen by ministries of health and welfare are likely to evolve very differently from services developed and sponsored by ministries of education. When preprimary programs are seen principally as social welfare programs providing day care to the poor, it can be difficult to engender widespread public support for quality programming; however, when preprimary care is seen as serving an educational function, as in Italy and the Netherlands, there is more support because its value to the middle and upper classes increases (Lamb & Sternberg, 1992).

FINANCING PREPRIMARY PROGRAMS

Myers (1995) outlines six basic sources of funding for early childhood programs: "1) governments, 2) international funders, 3) non-governmental organizations (with a social bias and operating on a non-profit basis), 4) the profit-making private sector, 5) community organizations and 6) program participants" (p. 416). The extent of a country's commitment of public funding to preprimary care and education is closely related to its political and economic philosophy. Cochran (1993) proposes that countries can be divided roughly into three categories on the basis of political philosophy: national economies planned and run by the state, social democracies, and market economies. In countries where the national economy is in the hands of the state (e.g., China and the former Soviet Union), public revenues are likely to be the primary source of funds for early childhood programs. Early childhood programs are also funded largely by public revenues in social democracies, such as Finland and Sweden; however, parents may be expected to contribute on a sliding scale according to income. In countries based on market economies (e.g., the United States), early childhood care and education are supported by a mix of private and public funds, with parent fees representing an important source of revenue. In practice, most countries depend on multiple public and private sources to fund preprimary programs. Examples of sources for public funds include individual or business taxes on property, income, and sales. Sources of private funds include parent fees, employer contributions, and donations from businesses and charitable organizations (Barnett, 1997).

A recent significant development affecting the provision and financing of child care and education programs in central and eastern European countries is the transition to a market economy in emerging democracies (see Cornia & Sipos, 1991). Formerly, before the current social reforms were implemented, the state assumed responsibility for providing center-based child care and education for preprimary children in these countries. As a result of social and economic reforms, there has been a shift away from state responsibility for the care and education of young children toward family responsibility (Evans, Karwowska-Struczyk, Korintus, Herseni, and Kornazheva, 1995). Decentralization of government services has resulted in local responsibility for provision and funding of family support and child care services in countries such as Poland, Hungary, and Bulgaria. Evans et al. report that many preprimary programs have closed due to the difficulties local authorities have encountered in financing and maintaining such services. In addition, newly developed private businesses cannot afford to provide child care services in the manner that state-owned industries did previously. In many existing programs, parent fees have been introduced or increased and in some instances are disproportionately high in an unstable economy where incomes fluctuate. As center-based child care becomes increasingly scarce and expensive, more child care is being provided through extended family or neighbors.

REGULATION OF PREPRIMARY SERVICES

Regulation of preprimary services refers to the establishment and enforcement of standards for service provision. Generally, regulations represent minimum government standards for ensuring the safety of program participants. Cochran's (1993) review of early childhood care and education policies in 29 countries found that the most common goal of regulation was to monitor basic quality in child care programs and facilities. Aspects of preprimary programs commonly monitored were caregiver training and qualifications, staff-child ratios, group size, and physical characteristics of setting environments. In some countries, regulations also address curriculum content and help to ensure that a centrally approved curriculum is followed.

Authority to regulate preprimary programs may be centralized or decentralized. That is, decisions about program standards and content may be made at a national or local level. Cochran notes that in some cases highly centralized systems result in overly dogmatic political philosophies and unwieldy bureaucracies. He advises that centralization is most effective when there are clear lines of authority and there is a lack of competition among various government interests.

Among the countries reviewed in Cochran's handbook, the general trend is toward decentralization of control. In some cases agencies issue national guidelines, which are then adapted by local municipalities. However, with a decentralized system of policymaking and regulation, policies often vary considerably from one region to another. Gill (1993) recommends a model where national agencies provide overall policy development and coordination while the authority for actually running programs is held locally.

As previously discussed, in many central and eastern European countries control of preprimary services has shifted from the central government to local authorities. Educators are concerned that with this decentralization of control, standards are slipping and quality of care is declining. Evans et al. (1995) recommend that in this transitional situation nongovernmental organizations provide technical assistance to local administrators and providers adjusting to their new roles.

The regulatory climate in the United States is one of decentralization and deregulation. An effort to impose federal standards for preprimary care and education was rejected by Congress in the 1980s. Regulation and licensing are the responsibility of individual states, and standards vary from state to state. Certain types of center-and home-based programs, such as part-day programs, family day care, and programs sponsored by religious organizations, are exempt from regulation in some states. Public preschool programs and federally funded programs, such as Head Start, fall under the jurisdiction of state departments of education and are exempt from state child care center licensing requirements, which are generally administered through departments of social welfare (Olmsted, 1989).

Writing about regulation of preprimary services in developing countries, Evans (1997) cautions that regulations based on standards used in industrialized nations are inappropriate and may be so restrictive that child care programs in developing nations, unable to comply with these standards, choose instead to operate illegally. She recommends that governments focus on supportive rather than prohibitive regulations and cites the example of Nigeria, where UNICEF has been working with the government to create realistic guidelines for care. Instead of requirements dictating specific standards for room size and layout, for instance, new regulations specify that classrooms must be "safe and spacious." As standards become less restrictive, more settings should be willing to be registered and, thus, monitored.

Children in a Nigerian setting practice early writing skills.

MANAGEMENT POLICIES AND QUALITY

A close relationship exists between government management policies concerning preprimary services and the resulting quality of the services actually provided. Policymakers often desire both wide coverage and quality services; however every country must make policy decisions that impact the balance between the *availability* and *quality* of services. In the 29 countries included in Cochran's review, the relative emphasis on quality versus availability is related to the stage of development of preprimary services in a particular country. In countries with a long history of public provision of child care services (e.g., Sweden), the present focus is on quality, whereas in countries where preprimary services are a relatively new development the emphasis is on making these services widely available. In some countries, where large public child care programs have developed fairly rapidly (for example, Brazil and Israel), there are now concerns about the poor quality of these services (Cochran, 1993).

Lamb and Sternberg (1992) believe that "the best quality of care . . . is provided in the context of comprehensive family policies" (p. 13) and that countries that have failed to develop such policies provide care of lesser quality. They and the contributors to their book further suggest that "child care facilities are least available and are of the poorest quality in those societies in which it is believed that child care issues should be left to parents rather than to public authorities" (p. 9). Dependence on the free market to supply and regulate child care services (as in the United States and the United Kingdom) can lead to a system of inequality, where low-income families end up receiving lower quality services (Phillips & Moss, 1989). This is true even with the aid of government subsidies. In most countries the demand for child care outstrips the supply, and when employed parents are desperate for child care they may accept services of questionable quality. In some countries, particularly those in which primary and secondary schools vary in quality, there may be a great deal of competition to be admitted to the best of these schools. In such countries, high-quality preprimary education, rather than child care provision, becomes important in helping prepare children for future schooling.

It is a common belief that nonprofit care providers offer higher quality services than for-profit providers due to their altruistic motivation and the fact that all of their income is devoted to program expenses. On the other hand, it can be argued that in the for-profit sector, competition and the need to satisfy parents force providers to offer high-quality services. Empirical studies in the United States have addressed the issue of quality of care as it relates to sponsorship. The Connecticut Profit and Quality Study (Kagan & Newton, 1989) examined variables linked to quality in child care centers across three types of center sponsorship: government-subsidized nonprofit, private nonprofit, and for-profit. The centers were similar in their stated program goals and average group sizes; however, there were differences favoring government-subsidized and private nonprofit centers on a number of variables, including staff-child ratios and support services to children and parents. In a review of four major studies addressing the connection between quality and sponsorship, Kagan (1991) concluded that "across the studies, quality [of the child care environment] in nonprofit centers was superior to that in profit centers" (p. 95), although quality also varied with the stringency of state regulations. She concludes that although the present mixed system of sponsorship in the United States is deeply embedded in the culture and unlikely to change, programs need more government support and stronger coordination, especially at the local level.

A major U.S. research effort, the Cost, Quality, and Child Outcomes Study (CQCO; Cost, Quality, & Child Outcomes Study Team, 1995), examined the economics of child care and the way market forces affect quality. The study collected data in 401 child care centers in four geographically and economically diverse states and included approximately equal numbers of randomly chosen for-profit and nonprofit centers. In addition to collecting basic structural information at each center, researchers made classroom observations and rated teacher involvement using a variety of standardized instruments.[1] Results of the various measures were combined into an overall quality index.

Investigators found that indicators of structural quality (e.g., staff-child ratios, teacher education) favored nonprofit settings but that for-profit and nonprofit settings were similar in overall measures of process quality (e.g., staff-child interaction), except in the least regulated state, where for-profit centers provided lower quality care. They also determined that costs in nonprofit centers were higher than costs in for-profit centers, largely due to higher staff wages in nonprofit centers.

To gain further insight into variations in quality in relation to sponsorship, the CQCO investigators looked at auspice within the for-profit and nonprofit sectors. In other words, they divided nonprofit centers into a) independent nonprofit, b) church-affiliated nonprofit, and c) publicly operated nonprofit. For-profit centers were divided into a) independent for-profit, b) local chains, and c) national systems. They found that there was as much variation in structural characteristics and overall quality of centers within each sector as between sectors. The greatest variation was in the nonprofit sector, where church-affiliated centers more closely resembled for-profit than nonprofit centers on quality and cost indicators. The authors argue that the results show that quality is not aligned with a particular profit sector and that a "more useful categorization of centers by quality would be between those that rely primarily on parent fees and those which tap other sources of finances to improve quality" (p. 61).

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[1] Standardized instruments included the Early Childhood Environment Rating Scale (ECERS; Harms & Clifford, 1980), the Infant/Toddler Environment Rating Scale (Harms, Cryer, & Clifford, 1990), the Caregiver Interaction Scale (Arnett, 1989), and the Teacher Involvement Scale (Howes & Stewart, 1987).

In recent years, some researchers in the United States have begun to expand the inquiry into the relationship between quality and sponsorship by broadening the nature of the outcome variables examined. One study looked at adult-child interaction and child care auspices (nonprofit, local for-profit, for-profit national chains, and church-sponsored) as predictors of social outcomes in preprimary children (McCartney et al., 1997). The authors discovered that, although findings varied according to stringency of state regulatory environments, there were small positive effects on social outcomes for children in nonprofit centers. Nonprofit centers also had higher teacher wages, more highly educated directors, lower staff turnover, and higher quality ratings. Ghazvini and Readdick (1994) looked at the association between auspice and parent-caregiver communication and found that both overall quality and frequency of communication were lower in private for-profit settings than in government-subsidized for-profit and nonprofit settings.

Across studies, the findings concerning the relationship between quality and sponsorship in the United States tend to favor the nonprofit sector; however, the relationship is not a simple one. The research suggests that other factors, such as stringency of regulation, teacher education and wages, and sources of revenue, may have more impact on the quality of preprimary settings than sponsorship alone. We will explore the impact of many of these factors in more detail in the following sections.

In summary, it is clear that national policy decisions regarding early childhood education and care are critical to the provision and quality of preprimary services. Policy decisions are the result of complex interactions among the cultural, economic, and political forces in any particular country. National early childhood policy must therefore be understood, interpreted, and evaluated within the unique cultural context in which it occurs. In the remainder of this chapter we will discuss a range of structural factors related to early childhood settings in countries around the world. It is helpful to keep in mind that, in some way, policy decisions have had an impact on each of these factors.

PATTERNS OF OPERATION

This section focuses on the structure of preprimary services in different parts of the world, that is, the availability of services and extent of coverage,[3] group size, and staff-child ratios. Specific information about early childhood programs and participation is lacking in many countries and a comprehensive review of the available information is beyond the scope of the present chapter; however, the information here should give the reader a general sense of the status of center-based preprimary services for children from age 3 to the age of entry into primary school. In addition, this section will highlight important issues regarding the operation of these services.

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[3] *Availability of services* refers to the number of children that can be served by current programs; *extent of coverage* refers to the amount of time (hours/day, days/week, weeks/year) settings are open for services.

AVAILABILITY OF SERVICES AND EXTENT OF COVERAGE

As noted in the previous section, the nature of center-based early childhood services varies according to the purpose of the services and the type of agency or organization sponsoring the services. For example, programs may serve as remedial education for economically disadvantaged children, offer enrichment for middle- and upper-class children, or meet the child care needs of employed parents. The availability of services and schedules of operation are likely to be very different across these different types of programs.

In most western European countries, preprimary classes or kindergartens with a focus on early education for children aged 3 to 6 years are well established. Although baseline data are inadequate due to the lack of a uniform data collection system across countries, estimates of the percentage of 3- to 6-year-old children served by publicly funded programs from 1991–1994 ranged from about one half (Portugal, Finland, Ireland) to more than 90% (Belgium, France, Italy) (European Commission Network on Childcare, 1996). Privately funded services are also offered in these countries, but data are not available on the number of children served by such programs.

Most preprimary services are administered through a country's educational system; however, in some countries, such as Sweden and Denmark, preprimary programs have traditionally been administered through the welfare system. The extent of coverage offered on a daily and yearly basis is strongly related to the administrative auspices of the programs. In general, services administered through the welfare system provide longer hours of care, an advantage for working parents, while programs offered through the educational system follow primary school schedules. For example, in Denmark programs for 3- and 4-year-olds are open for about 50 hours per week year-round, while in the United Kingdom playgroups and preprimary classes follow the primary school term (40 weeks) and are open for limited hours each week.

Within the European Union, most countries have achieved or are moving toward public funding of preprimary educational services for all children between 3 and 6 years. Exceptions to this trend are Ireland, the Netherlands, and the United Kingdom, which offer limited preprimary schooling in combination with early admission to primary school (from age 4). These services, which are extensive compared to those found in many parts of the world, generally do not meet the child care needs of employed parents. To do so, some countries are now beginning to increase services to children below age 3 and are extending the hours of care for children of all ages (European Commission Network on Childcare, 1996).

Prior to government reforms in the early 1990s, national governments in central and eastern Europe provided preprimary care and education in center-based programs. Educational services for children from about 3 to 6 years of age, though not mandatory, were widely used. As previously noted, with the transition to a market economy there has been a shift in responsibility for child care away from the state to local authorities and an increase in privatization of services. Many programs have closed as a result of difficulties with this transition, and overall, enrollment in preprimary programs is declining in some countries. With fewer child care services available and growing opportunities for employment in the private sector, many parents are having to piece together child care to cover unpredictable schedules. Family and neighborhood-based care help meet this need for many parents (Evans et al., 1995).

Early childhood care and education services in North America are decentralized and have little support from the national governments. Preprimary programs and policies in the United States and

Canada are the domain of the states or provinces, and availability of services varies a great deal from program to program and across locations. According to a 1995 U.S. national survey, about 40% of 3-year-olds, 65% of 4-year-olds, and 75% of 5-year-olds not yet enrolled in primary school were enrolled in center-based programs (West, Wright, & Hausken, 1995). In the United States, center-based early childhood services fall roughly into two main categories: child care centers and preschools. Child care centers are generally open all day, 5 days per week, and offer care from infancy through the preschool years. Preschool programs, including Head Start and state prekindergarten classes, are primarily part-day and generally target 3- and 4-year-old children (Hofferth, 1996). Preschool programs frequently follow the primary school schedule, with a long break in the summer months. Child care centers are often better suited to the needs of employed mothers, because of the longer hours provided. Working parents whose children attend part-time preschool programs generally have to utilize additional types of care (e.g., relative care or family day care) to cover the entire work day. (See Hofferth, Shauman, Henke, & West, 1998, for a detailed breakdown of percentages of preschool children with various combinations of nonparental care arrangements.)

The picture is similar in Canada, where preprimary children may attend day care centers, nursery schools, kindergartens, or a combination of these. Government surveys from 1989 indicated that an average of 19% of 3- and 4-year-olds attended "day care or nursery programs" and that, although the number of available spaces was increasing, only a small fraction of the population in need of services was being served (Biemiller, Regan, & Lero, 1992). All provinces provide kindergartens for 5-year-olds through the public educational system, and a number of provinces also offer junior kindergartens for 4-year-olds. Most kindergartens are half-day programs; however, some have experimented with full-day (9:00 a.m.–3:00 p.m.) programs in the hope of improving educational outcomes for children. Although no achievement benefits have been related to full-day kindergarten programs, the province of Ontario has continued to support them, citing the need for day care as justification (Biemiller et al., 1992).

Over the past 30 years the percentage of preschool children enrolled in center-based care in the United States and Canada has increased steadily. While much of the increase has been fueled by the rise in employment rates among mothers of preschool children, increasing numbers of children of nonemployed mothers are also attending center-based programs (Hofferth, 1996). As noted earlier, many employed parents in both countries must piece together full-day coverage by using a combination of preschool programs, center-based day care, and home-based care.

Statistical information regarding child care and education programs in developing countries is often incomplete or nonexistent, and without knowing the size of the population needing services it is difficult to know how well child care and education needs are being met in these countries. However, Myers (1995) offers some information about program structure and availability of services. He states that in most developing countries, especially sub-Saharan countries, organized child care and education programs are scarce. Most of the existing programs are in urban areas, and many are demonstration programs that do not offer broad coverage. According to Myers, "day care that takes into account both the needs of children and of their working mothers remains at a very low level, both in extension and in quality" (p. 21).

However, from a review of 1988 UNESCO statistics, Myers concludes that availability in all but the most war-torn countries is growing. In fact, some countries with a small initial base (e.g., Oman and the Dominican Republic) have shown dramatic, five- to six-fold increases in the number of chil-

Children in a private kindergarten in Catalonia (Spain) eat lunch together in small groups.

dren served over a 6-year period. Other countries initially serving large numbers of children (e.g., Brazil and Thailand) doubled or tripled services from 1980 to 1986. More specifically, UNESCO estimates for Latin America as a whole indicate that participation in preprimary programs of children 0 to 5 years of age increased from 7.9% in 1980 to 15% in 1986 (Tedesco, as cited in Myers, 1995, p. 25). Myers concludes that, in general, organized programs have increased much more in Latin America and Asia than in African countries, and he points to the need for systematic record keeping as a means of tracking growth.

Early childhood programs in developing countries take many forms and are often quite different from those found in industrialized nations. In many cases a program's first priority is to meet nutritional needs. For example, Myers describes the Brazilian Preschool Feeding Programme, which meets in the cities on weekday mornings to serve the health and nutritional needs of large numbers of poor children, and *anganwadi* centers in India, which gather children for approximately 3 hours on weekdays to monitor physical growth and offer supplementary feeding and educational activities. In contrast to these types of programs, which are designed to address children's physical and developmental needs and operate for only a few hours per day or week, care designed to meet mothers' employment needs is likely to cover more hours on a daily and yearly basis. For instance, Myers describes child care centers in Senegal that are open from 8:00 a.m. to 7:00 p.m. to cater to the needs of mothers who must spend long days in the fields. Myers concludes that formal preschool models that emphasize academic preparation are not usually suited to developing countries, and those that do exist are typically found in urban centers and are not accessible to many families.

OPERATING SCHEDULES AND CHILD OUTCOMES

Little research has been carried out specifically linking operating schedules in preprimary programs to child outcomes. Indeed, operating schedules are tied to so many other program variables that it is difficult, if not impossible, to isolate the effects of schedules.

Results from research on long-term outcomes for children attending child care and education programs has led to a few general observations about the effects of different patterns of operation. The first relates to part-day preschool programs in the United States aimed at improving outcomes for economically disadvantaged preschoolers. Studies have demonstrated that high-quality programs operating for as few as 3–4 hours per day, 9 months per year, can have a positive effect on the long-term educational and social outcomes of disadvantaged preschoolers (Barnett, 1995; Schweinhart, Barnes, & Weikart, 1993). However, the *quality* of care, rather than the amount or length, seems to be the important factor; recent evidence shows that the quality of care in child care centers, where children typically receive full-day care, affects children's cognitive and social development into the second grade (Cost, Quality, and Child Outcomes Study Team, 1999).

One retrospective study in the United States, focusing specifically on different patterns of child care arrangements, found that children who participated in full-time day care for 4 years were similar in social development to children cared for at home (Thornburg, Pearl, Crompton, & Ispa, 1990). Interestingly, children who received part-time care had the lowest scores of any group on one aspect of social behavior, characterized as *quality of interactions*. The authors speculate that perhaps mothers of such children work part-time themselves and may feel more guilty and frustrated in their home and work roles than mothers who work full-time or mothers who stay at home full-time. They hypothesize that the mothers' conflicted feelings may carry over into their childrearing styles and ultimately affect their children's behavior. While this study is inconclusive and tied to a particular culture, it suggests an avenue for future research.

A review of studies from countries around the world reinforces the U.S. findings; thus, there is no consistent evidence that daily schedule per se influences long-term outcomes for children (Boocock, 1995). The most salient factor affecting child outcomes appears to be program quality, not the number of hours or days spent in child care or educational programs. Therefore, in making decisions about operating schedules in child care and education programs, it is perhaps more important to provide high-quality child care services that accommodate parental needs than to be concerned about the effect of longer hours of group care on children.

GROUP SIZE AND STAFF-CHILD RATIOS

Two hallmark characteristics associated with structural quality in preprimary programs are group size and staff-child ratios. The importance of these two variables was established in one of the earliest large-scale U.S. studies to examine structural variables, the National Day Care Study (NDCS; Ruopp et al., 1979). Using a combination of experimental and quasi-experimental designs, investigators found that children's social and cognitive development were enhanced when there were fewer children per caregiver in combination with smaller group sizes. Based on these findings and those of other studies, standards for group size and staff-child ratios have been incorporated into state licensing regulations and the accreditation criteria of the National Association for the Education of Young Children (NAEYC) in the United States for almost 2 decades. (NAEYC recommendations, representing the most stringent standards in the United States, serve as standards for programs striving to provide the highest quality of care. In contrast, state government regulations often provide minimum standards for safe care in preprimary programs.)

The NAEYC guidelines point out that the number of children in a group and the ratio of adults to children must be considered together. A group of 20 children with 2 adults does not provide the same psychological environment for children as a group of 40 with 4 adults, even though each group has a staff-child ratio of 1:10 (National Academy of Early Childhood Programs, 1991, p. 39).

NAEYC recommendations for staff-child ratios for 4-year-olds vary according to group size, from 1:8 for a group of 16 children to 1:10 for a group of 20 (the maximum group size recommended for 4-year-olds). However, NAEYC criteria recognize that ratios will vary according to program activities, the inclusion of children with special needs, the time of day, and other factors.

A 1995 survey showed that state government regulations for staff-child ratios for 4-year-olds varied widely, from 1:6 to 1:20 (Snow, Teleki, and Reguero-de-Atiles, 1996). The average number of children per teacher/caregiver actually increased slightly across all states over a 15-year period, from 12.04 in 1983 to 12.84 in 1995. Only 19 states met the NAEYC criterion of 1 adult for 10 children. The 1995 survey also found that many states do not regulate group size, although the number of states specifying a maximum group size increased from less than half in 1983 to 30 in 1995. The range of maximum group size specified for 4-year-olds varied from 20 to 36. The most common group size specification was 20 (17 states).

Within the European Union, most countries have established standards for staff-child ratios in publicly funded preprimary programs. Generally, these ratios tend to vary according to administrative auspices. Preprimary programs administered by welfare systems tend to have more favorable staff-child ratios than programs administered by education systems. For example, in Denmark, Finland, and Sweden, which operate child care programs within the welfare system, staff-child ratios for children aged 3 and older vary from 1:6 (Denmark) to 2–3.5:18–20 (Sweden). In contrast, preprimary programs offered through educational systems, such as the *ecole maternelle* in France and the *escuela infantile* in Spain, have staff-child ratios of 1:27 and 1:25, respectively. However, it should be noted that often a teacher and an assistant work together in such classrooms, making the actual ratios more favorable (European Commission Network on Childcare, 1996). Staff-child ratios in many European countries fall between these two extremes, with an average of 1 or 2 adults per 18–23 children (European Commission, 1995).

In developing countries, formal preschool programs with strict staff-child ratio requirements are often not suited to the culture or environment, and nonformal child care and education services frequently develop outside of government structures. These services are often community based and may rely on paraprofessionals or volunteers to staff them. Myers (1995) described a successful program operating in rural areas of Peru, in which approximately 30 children between the ages of 3 and 5 are brought together under the supervision of 1 paraprofessional.

Writing about quality standards in developing countries, Schweinhart (1997) pointed out that funding limitations may require program planners to settle for a relative level of quality, that is, standards which at least surpass those of the settings in which young children would otherwise be spending their time. For example, in an attempt to maximize its impact in populous countries, the

Aga Khan Foundation advocates a standard of 1 adult for twenty 4-year-olds. Schweinhart observed that while this standard may not be optimum for enhancing children's development, it may be the best way to serve the largest number of children and offer such necessary services as nutrition or family welfare assistance. Programs may be able to keep costs down and increase staff-child ratios by making use of volunteer help and teaching assistants.

OUTCOME RESEARCH ON GROUP SIZE AND STAFF-CHILD RATIOS

Underlying the importance of staff-child ratios in child care settings is the belief that

> adult caregivers mediate children's contact with the social and physical world. Through social games, verbal interaction, and physical contact, caregivers offer children opportunities to practice and enjoy social exchanges, learn about the properties of objects, and acquire a sense of security and self-worth. (Phillips & Howes, 1987, p. 8)

The results of the NDCS (Ruopp et al., 1979), described earlier in this section, initiated a wave of research on quality in child care settings in the United States and other countries (see reviews by Doherty-Derkowski, 1991, and Phillips & Howes, 1987). In their review of studies conducted in the 1980s, Phillips and Howes pointed out that staff-child ratios have been found to affect both caregiver and child behaviors. Among other outcomes, more favorable staff-child ratios were related to positive effects on children's verbal interaction and children's engagement in play as well as to more nurturant, nonrestrictive caregiver behavior. In their review they also found that "smaller groups appear to facilitate constructive caregiver behavior and positive developmental outcomes for children" (p. 6).

Most of these early studies took place at one particular site, limiting their generalizability to broader populations, and examined only concurrent child outcome behaviors. More recent large-scale, multisite studies in the United States have included samples that are more nationally representative, drawing from sites varying in geographic location, degree of urbanization, and stringency of state regulations governing child care settings. Brief descriptions follow of key findings related to group size and staff-child ratios.

The National Child Care Staffing Study (NCCSS, Whitebook et al., 1989) investigated the relationship of teacher characteristics and work environment to quality of care. Data collection took place in 227 child care centers in five metropolitan areas in the United States and included teacher and director interviews, classroom observations using rating scales, and child developmental measures. Researchers included staff-child ratios and group size as structural environmental measures. The investigators found that more favorable staff-child ratios predicted more positive teacher-child interaction; however, group size was not related to teacher behaviors. Further analyses demonstrated an association between positive teacher behaviors, specifically sensitive and appropriate caregiving, and children's language competency. A breakdown of findings according to auspices revealed that nonprofit settings had more favorable staff-child ratios than for-profit settings.

In a later study that used samples from two states with very different licensing standards for child care centers, Howes, Phillips, and Whitebook (1992) investigated the relationships among two structural variables (staff-child ratios and group size), process quality,[3] and children's social development. The researchers found a strong relationship between the quality of caregiving and the number of children per adult. In fact, the addition of just 1 child to the classroom made a difference; preschool children in classrooms with 8 or fewer children per caregiver were more likely to receive caregiving rated very good than were children in classrooms with 9 children per caregiver. They also found that preschoolers in classrooms with 18 or fewer children were more likely to experience developmentally appropriate activities than children in classrooms with more than 18. Path analyses supported the authors' hypothesis that regulatable quality factors (i.e., staff-child ratios, group size) influence process quality (teacher behaviors and activities), which in turn affects children's relationships with their teachers and ultimately with their peers. The authors do point out, however, that their study has an important limitation in that selection factors were not controlled. They recommend that in future studies, family background characteristics, which are likely to be related to both choice of setting (and therefore quality of setting) and children's outcomes, be measured and used as control variables.

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[3] Process quality was measured by the ECERS (Harms & Clifford, 1980) and the Infant/Toddler Environment Rating Scale (Harms, Cryer, & Clifford, 1990).

The Observational Study of Early Childhood Programs (Layzer, Goodson, & Moss, 1993), which described the classroom experiences of economically or educationally disadvantaged 4-year-olds in 119 settings from 5 states, was carried out with the aim of examining the components of quality in early childhood classrooms. Among other findings, in a sample that included a relatively narrow range of staff-child ratios (1:6 to 1:12), investigators concluded that more favorable staff-child ratios were positively associated with global measures of classroom quality (e.g., the ECERS) and with the amount of adult-child interaction. Group size was not related to global ratings of classroom quality.

Although the ratio of adults to children was only one of many variables related to quality measured in the CQCO Study (Cost, Quality, and Child Outcomes Study Team, 1995), favorable ratios were among the three most important indicators of high-quality child care. Hierarchical regression analyses identified staff-child ratio as the most important of several variables predicting child care quality, and the association between ratio and quality was stronger for low-quality centers. That is, greater increases in quality could be expected to result from improvements in ratios if initial child care quality was poor to mediocre. As in the NCCSS, staff-child ratios in preschool rooms were found to be more favorable in nonprofit than for-profit centers.

The Florida Child Care Quality Improvement Study (Howes et al., 1998) made use of changes in state licensing standards to look at the effects of higher standards on center quality and children's outcomes. Although the state ratio requirements for 4-year-olds did not change (1:15 for 3- to 4-year-olds and 1:20 for 4- to 5-year-olds), investigators were able to compare settings that met the state requirements to settings that met the more stringent, professionally recommended ratio (1:8 for 4-year-olds). These comparisons showed higher scores on measures of children's development (play with peers and objects, attachment security, adaptive language) and fewer behavior problems in settings meeting the higher professional standards than in settings meeting the state standards or out of compliance with all standards. The investigators also found that in settings following professional ratio standards, teachers' behaviors were rated as more positive and classroom quality was rated higher than in settings meeting only state requirements or out of compliance with all standards.

As this brief review illustrates, staff-child ratios repeatedly emerge as important predictors of classroom quality and positive child outcomes in large-scale, multisite studies. However, most researchers agree that staff-child ratios serve as a marker variable or proxy for process quality and classroom dynamics. Research supports the belief that staff-child ratios and group sizes that fall within professional recommendations provide the environment for high-quality interactions between children and their teachers, which ultimately have a positive effect on children's development.

PHYSICAL CHARACTERISTICS OF CHILD CARE AND EDUCATION SETTINGS

Perhaps no other characteristics highlight the differences among child care and education settings in different parts of the world more than the physical characteristics of the settings, for example, the amount of space available, the structure of the space, and the amount and types of equipment and materials available to children and teachers. In many industrialized nations with a long history of government-sponsored child care and education, settings are rich with a wide variety of educational materials and innovative use of space. In other countries, where resources are scarce and out-of-home child care is a relatively new phenomenon, settings may be little more than a makeshift space in a garage or the shade of a tree outdoors. The following section presents an overview of current thinking and research related to physical characteristics of child care and education settings. Most of the research cited has been carried out in western industrialized countries. As such, the research reflects the status of settings in countries with access to greater resources and a longer history of center-based child care and education than in many developing countries.

CENTER SIZE

As the number of children participating in preprimary care and education programs increases, it is particularly important to address the issue of center size. The size of child care centers varies enormously both within and across countries. Typical child care centers in Sweden, for instance, are small and intimate, with one to four groups of 10 to 15 children each and a total of no more than 60 children. In contrast, many settings in the United States serve well over 100 children (Moore, 1996). Research has shown a link between center size and quality of care. Investigators have found that in larger centers there is an emphasis on rules and routines, while smaller centers enable adults to meet the individual needs and interests of children (Prescott, Jones, & Kritchevsky, 1972). Based on this and other evidence, Gary Moore, an expert in child care facility design, recommends that child care facilities serve about 60 children, with a maximum of 75 (Moore, 1996).

The recommendations in Table 2.1 for amount of space in child care settings grew out of the Children's Environment Project, research sponsored by the U.S. Army to develop guidelines for military child care centers (Moore, Lane, Hill, Cohen, & McGinty, 1994). These recommendations are widely used for the design of preprimary child care and education environments.

Moore (1996) recommended that rather than make existing centers bigger as demand grows, more centers should be constructed. To control costs, the centers could become part of a network

Table 2.1 Space recommendations for preschool child care environments

Type of Space	Minimum	Recommended
Child activity space[a]	35	42
Other support space	25	38
Other facility space (mechanical, corridors)	12	20
Total facility	72	100
Outdoor play area	75	100
Overall site size (parking, drop-off area, loading dock, etc.)	190	300

Note. Adapted from Greenman, 1988. [a]All measurements are in square feet per child.

with some centralized functions, for example, administration, purchasing, and curriculum planning. In cases where this is not possible, Moore recommended the creation of a "village plan" where children are served in a series of interconnected buildings, each with its own identity and entrance. Where large numbers of children must be served in one building, he advised creating different wings or pods, each with a separate identity and each serving no more than 60 children. Moore cited examples of settings in the United States and Canada that serve upwards of 200 children in overall spaces as large as 19,000 square feet (1,800 square meters). These settings have succeeded in creating many smaller, intimate spaces for children, and administrative offices and outdoor play areas are shared.

SPACE PER CHILD

A number of resources in the United States offer recommendations regarding minimum space densities, or the amount of space per child, in child care and education settings. Writing about designing preschool play environments, Ramsey and Reid (1988) recommended that classrooms provide at least 35 square feet (3.25 square meters) per child, unless the environment is highly enriched with materials. Both Head Start Performance Standards and NAEYC accreditation criteria also specify 35 square feet per child as the minimum indoor space requirement.

Much of the research on classroom space in early childhood care and education took place in the 1970s and 1980s in western cultures. Reviewing the early research on the effects of crowding in preprimary environments, Ramsey and Reid concluded that studies point to an "optimal spatial density level"; densities below 25 square feet (2.32 square meters) per child were often associated with a variety of negative effects.

British researchers Smith and Connolly (1980) conducted an ambitious series of ecological studies observing the effects of planned variations in preschool environments over a 9-month period. They found that the amount of space available (25, 50, or 75 square feet per child) affected the amount and kind of physical activity observed but had little effect on social behavior. In larger spaces there was more running, chasing, and vigorous use of physical equipment; in smaller spaces there was more physical contact between children but no increase in social or aggressive behavior. Further investigation into children's free-play behavior at various levels of density showed that children in centers with more space available spent more time in focused, solitary play and less time observing, although spaciousness did not affect their interactions with peers (Holloway & Reichhart-Erickson, 1988). However, when Smith and Connolly compared extremes of space density (15 and 60 square feet per child), they found that physical activity was greatly inhibited at 15 square feet (1.4 square meters) and that children displayed less social interaction and more aggressive behavior. On the basis of their research, the authors recommended that at least 25 square feet of free space per child be available in preprimary settings.

High-density situations often mean higher noise levels and fewer opportunities for privacy. However, these negative effects can be reduced by adding partitions to divide the space into smaller areas and by providing a sufficient number of toys and equipment to reduce competition (Field, 1980; Holloway & Reichhart-Erickson, 1988).

In Smith and Connolly's study, the high-density conditions were in place for only short periods of time for the purpose of the research. To investigate the effects of *long-term* crowding on preschoolers' behavior, Liddell and Kruger (1987) looked at natural variations in density in a crowded day nursery

Partitions create quiet, private spaces for enjoying books in this preprimary school in Italy.

in South Africa. Children aged 32 to 64 months were observed in a setting where density ranged from 1.56 to 0.56 square meters (16.1 to 5.7 square feet) per child due to fluctuations in attendance. (It should be noted that the lowest density observed in this study was comparable to the highest density in Smith and Connolly's research.) The authors wanted to learn whether density effects were relative to the range of conditions experienced. In other words, would the South African children exhibit behavior changes with variations in density similar to those observed in western cultures, even though their baseline conditions were crowded by western standards? The investigators found this to be the case; at higher densities children spent less time in cooperative interaction and social activities and more time unoccupied. Further analyses showed that the percentage of time spent in various behaviors (e.g., cooperative play and solitary play) was similar to that observed in research in western cultures, and that the degree of crowding in the children's homes was only moderately important in explaining their ability to cope with crowded conditions in the day nursery. The authors cautiously suggest that in "cultures where overcrowded day care conditions prevail, questions may be raised as to whether reductions in density merit high priority . . . in the short term the effect of severe crowding may be less extreme than would have been anticipated" (p. 209).

Although the most careful research suggests that there is a threshold density of 15 to 25 square feet per child, below which there is an increase in the frequency of negative behaviors, Campbell and Dill (1985) point out that previous research has not adequately measured the effect of space on the quality and complexity of children's play. They argue that at higher density levels, even within the acceptable range, the quality of children's play behaviors may be diminished. They and other researchers also suggest that a number of other factors, such as the quality of the space, materials, and teacher behaviors, can alleviate the potential negative effects of high densities in preprimary environments.

STRUCTURE OF SPACE

Piagetian theory argues that children learn and develop through their interactions with the environment. From child development theory and their own observations, program planners have long recognized that there is a relationship between the structure or arrangement of space in preprimary settings and the behavior of those who work and play in that space (see Ramsey & Reid, 1988, for a review of early research). More than 2 decades ago Kritchevsky and Prescott (1977) emphasized the importance of articulating specific program goals and arranging the physical space to enhance those goals. For example, a Head Start goal may be to help children learn to focus their attention on the teacher, whereas teachers in a day care center might wish to encourage children to spend long periods engaged in activities of their own choosing. In the Head Start setting, the authors suggest limiting the number of easily available play materials so as not to distract children's attention from the teacher. In contrast, the day care center space should be arranged to allow easy access to a variety of play materials and encourage children to explore on their own.

It is also important to recognize the influence of culture on the perception of privacy, room size, and the arrangement of space. For instance, in some cultures privacy is rare and not necessarily a desired quality, while other cultures highly value individuals' space and time to be alone (Greenman, 1988). All of these factors need to be taken into account when designing and evaluating space in early child care and educational environments.

Greenman (1988) discussed three basic physical layouts of early childhood programs: home-like settings, traditional classrooms, and large open rooms. Home-like settings (whether in centers or actual homes) generally have a number of small, specialized rooms and one or more common rooms for shared activities. This type of setting works best for small groups of children, when traffic can flow from room to room throughout the day. Traditional classrooms follow a traditional school model, with almost all activities, including eating and sleeping, taking place in the same space. Open space rooms make use of dividers and portable walls to create smaller spaces and a large common area. Greenman points out that each type of space has advantages and disadvantages. Home-like settings offer a variety of spaces but don't work well for large numbers of children. Traditional classrooms have the advantage of bounded space but may lack variety unless children can experience other environments, for instance, through field trips or the use of gyms and art rooms. Open space classrooms allow more flexibility and cost less to build than other types of settings, but there may be problems due to noise and sensory overload, especially when large numbers of children share the space. Additional rooms may be desirable to improve the functionality of any setting, including a kitchen, staff room, administrative office, laundry room, sick room, and janitorial space.

Phillips and Moss (1989) describe schools in the Emilia Romagna area of Northern Italy, where classrooms have been "divided into small spaces in which young children feel safe and contained. This arrangement allows children to work in small groups at different activities and helps them to concentrate, undistracted, by other children's activities" (p. 23). A number of studies have also demonstrated the advantages of having clearly organized space. Well-organized space with clear boundaries for separate activities has been associated with positive adult involvement, increased child exploratory behavior, more social and cooperative interaction among children, and better cognitive performance (Moore, 1986; Clarke-Stewart, 1987).

OUTDOOR SPACE

Children's playgrounds can be classified into four types: traditional, designer or contemporary, adventure, and creative (Frost, 1986). Traditional playgrounds are usually flat areas equipped with steel structures designed for exercise play, such as swings, slides, and climbers. Designer or contemporary playgrounds are typically professionally designed to have high aesthetic appeal, at least to the adult eye. Manufactured play equipment made of wood and pleasing landscaping characterize this type of playground. Adventure playgrounds are highly informal, fenced areas stocked with scrap building materials, tools, and space for animals. Creative playgrounds are semiformal environments combining features of the other three types. They contain a range of manufactured and handmade equipment.

Traditional playgrounds are the most prevalent, especially for school-aged children, but creative playgrounds are a popular alternative for preschools. Adventure playgrounds are more frequently seen in some European countries (e.g., Denmark) but have failed to gain wide acceptance elsewhere. This type of playground presents some safety concerns and may not be appropriate for preschoolers. Reviews of research investigating typical play behaviors on various types of playgrounds can be found in Frost (1986) and Frost and Sunderlin (1985). The bulk of the research shows that creative and adventure playgrounds provide more opportunities for and thus stimulate more social and cognitive play. Regarding equipment, Frost (1986) asserts that "the growing body of evidence points to a play environment for young children that contains a variety of both fixed, complex equipment and simple, transportable materials" (p. 207). He advises that the materials need not be theme specific; raw materials such as sand, water, tires, and lumber offer many opportunities for creative play.

One U.S. study looked at playgrounds in a sample of Texas day care centers to answer questions about content and safety (Monroe, 1985). The results showed that many of the playgrounds needed safety improvements, such as placing resilient materials in fall zones. Most of the playgrounds contained traditional equipment, and nearly 75% needed additional opportunities for children to interact with living things through gardens, natural areas, birdhouses and feeders, and space for small animals. One half of the playgrounds had no provisions for dramatic play, and most could benefit from more diversity in surfaces and equipment. Interestingly, nonprofit centers and centers with staff who had specific training in early child development had significantly better playground scores.

Moore (1994) recommended moving away from traditional playgrounds in preschool settings toward the concept of play yards or a series of interconnected yards similar in size and character to backyards typically found in North America. Ideally, the yards would be comprised of many "resource-rich activity pockets, zoned from quiet to active, small group to large group . . ." (p. 9).

MATERIALS

Just as the amount and configuration of space affect children's behavior, the amount and characteristics of the equipment and materials with which they interact also strongly influence their behavior. Ramsey and Reid (1988) and Phyfe-Perkins and Shoemaker (1986) present reviews of the research in this area. In general, the research shows that different kinds of materials are associated with qualitatively and quantitatively different types of play. Rubin (1977) found that the use of open-ended materials such as sand, water, crayons, and paints was associated with nonsocial play and that social interaction was more likely to occur during housekeeping, vehicle play, reading, and number activities. In fact, the availability of art materials, sand, water, and puzzles may actually inhibit group and dramatic play (Rubin & Seibel, as cited in Phyfe-Perkins & Shoemaker, 1986). On the basis of their research, Smith and Connolly (1980) advise that imaginative physical activity is encouraged when climbing equipment or similar apparatus is provided and small toys are removed. They note that having less equipment and fewer materials helps encourage cooperative play among children who normally play alone; however, they also found that aggressive behavior in free-play situations increases when less play equipment is available.

Italy

Kritchevsky and Prescott (1977) presented a system for analyzing play equipment according to level of complexity and variety. Simple play units (e.g., a swing or tricycle) have one obvious function and contain no subparts. In contrast, complex units consist of subparts or the juxtaposition of two different play materials (e.g., a sand table with containers and toys for digging) and offer more choices for play and more potential for group play. The authors argue that greater complexity sustains children's attention and fosters dramatic play and social interaction.

China

Spain

Toys and equipment can also be classified by variety, or type of activity elicited. For example, vehicles, climbing equipment, and sand tables each elicit a different type of play. A play area may have adequate complexity but lack variety and thus offer children few real choices. Kritchevsky and Prescott advise that it is important for staff

Materials for construction, dramatic play, arts and crafts, and gross-motor activity provide a rich variety of play opportunities.

Belgium

to understand the relationship between their goals for children and the materials in the play environment. If child autonomy is valued, it is important that children have sufficient variety, or an adequate number of choices, as they move from one activity to another. If the focus is on sustaining children's attention, staff must provide more complex materials and equipment.

In many countries, especially those with adequate resources, general recommendations exist regarding materials and equipment for preprimary settings. Guidelines such as NAEYC Accreditation Criteria or Head Start Performance Standards in the United States specify the use of safe, age-appropriate materials of sufficient variety to encourage active play, sensory exploration, dramatic play, art, construction, manipulation, and literacy. However, in developing countries, physical settings are often no more than one or two rooms in an existing church or primary school, and it is often impossible for programs to maintain a rich array of materials and equipment for children's use. Woodhead (1996) cautions that the manufactured materials used in early childhood programs in affluent societies are not necessarily relevant to programs in developing countries. He suggests that many materials can be improvised in less affluent settings and that settings in rural areas can make use of the natural environment to augment the materials on hand. Perhaps the important principle to keep in mind is to offer young children materials of sufficient variety and complexity (whether manufactured, improvised, or natural) that will engage their interest and stimulate learning. Staff in preprimary settings throughout the world are confronted with physical facilities that are far from ideal; however, careful planning and organization and creative use of space can help compensate for any deficiencies.

In summary, an impressive amount of research has examined the effects of the physical setting on child behavior in early child care and education programs. Researchers have documented that variations in room size, room arrangement, and types of materials available are associated with differences in children's behavior. These factors interact with one another and with many other environmental characteristics, such as group size, staff-child ratio, teacher training, and access to other resources, in influencing the child's experience. It is important for teachers, whatever the resources of the physical environment, to use their creativity to provide a setting that helps them fulfill their program goals.

OUTSIDE RESOURCES AND SUPPORT SERVICES IN PREPRIMARY SETTINGS

Support services refer to resources beyond basic care and education that are available to participants in preprimary settings. These resources may include, for example, screening for health and developmental problems, provision of nutritional supplements, referrals to social service agencies, or special programs for parents and others in the community. A review of the literature reveals little research on the types of support services available or their impact on children. Most of the information presented in the following section relies on documentation from programs designed to serve disadvantaged children, such as enrichment programs in developing countries and the Head Start program in the United States.

SUPPORT SERVICES

Children's health, nutritional, and psychosocial states are all linked, and all affect their ability to learn (Evans, 1997; Myers, 1995). To optimize children's growth and development and create the best possible environment for learning, some preprimary settings provide screening for health and developmental problems. A smaller number of settings have medical and other services available to children on site. Evans (1997) argues that the most effective programs for young children, especially in developing countries, are those that integrate health, education, nutrition, social, and economic components. In recognition of this, many early childhood programs in developing countries primarily focus on improving children's health, nutrition, and overall development, such as the Brazilian feeding program and Indian *anganwadi* centers mentioned earlier. As another example, in Colombia payroll taxes fund centers providing health, nutritional, and educational services to young children.

In addition to offering their own supplemental health-related services, preprimary programs may also take advantage of community-based resources. Programs draw on community resources in a variety of ways. In some cases resources are monetary, but time and materials are often donated by individuals and organizations as well. Myers cites examples from several developing countries, in which women in the community prepare snacks or meals for children in preprimary programs and volunteers help staff centers or make home visits. Such donations are a real value to centers, as they reduce costs and thus may make the difference in the programs' ability to survive. Programs in Israel offer a different example of community involvement. Afternoon programs there are operated by community women's organizations to supplement many government-sponsored, half-day preschool enrichment programs and provide out-of-home care on a full-day basis. Parents cover the cost of these services (Rosenthal, 1992).

Although few research studies have looked at the impact of support services on programs or children, the authors of a recent review in the United States recommend that these services be included as part of a broad measure of quality in early childhood programs (Love, Meckstroth, & Sprachman, 1997). Another study, A Profile of Child Care Settings (PCCS), sponsored by the U.S. Department of Education, documented the prevalence of support services in a nationally representative sample of early care and education programs (Kisker, Hofferth, Phillips, & Farquher, 1991). Table 2.2 provides a summary of selected findings regarding support services from this study.

Table 2.2 Support services provided by early education and care programs in the United States

Support Services	Percentage of Center-Based Programs[a]
Meals or snacks	92
Physical examinations	13
Dental examinations	16
Hearing, speech, or vision testing	55
Psychological testing	23
Cognitive development testing	43
Social development testing	42

Note. Adapted from Kisker et al., 1991. [a]*N* = 1,811 center-based programs serving nonhandicapped children aged 3 and older.

As the table indicates, meals or snacks are provided in almost all settings. Many programs serve lunch, approximately half of the settings serve breakfast, and very few serve dinner. Slightly more than half of center-based programs offer hearing, speech, or vision testing, but only a small percentage provide physical and dental exams. Cognitive and social developmental testing is quite common, offered in over 40% of settings, but psychological testing is not as prevalent.

Health and developmental screenings are expensive services to offer. In the United States, government-funded preschool programs designed to serve disadvantaged or at-risk children—for example, Head Start and public preschool programs—are most likely to offer such services. Head Start programs are required to offer a range of support services, and according to PCCS figures, nearly all Head Start programs offer hearing, speech, or vision testing and cognitive and social developmental testing. In addition, the researchers found that 90% of Head Start programs offer psychological testing, 81% provide dental exams, and 72% provide physical exams (Kisker et al., 1991). PCCS researchers also looked at support services in public school preprimary programs, programs generally offered to children at risk of school failure, and found that 85% offer hearing, speech, or vision testing; over 70% offer cognitive and social developmental testing; and 61% offer psychological testing. About one third of public school preschool programs provide physical and dental examinations.

A number of studies over the past 2 decades have examined the impact of health and development services in Head Start programs. In general, the reports substantiate the importance of such services by documenting the number of children with health needs who enter these programs. One evaluation study indicated that two thirds of children entering Head Start had speech and language problems, two thirds had vision problems, one third failed hearing tests, and one third scored below the tenth percentile in motor skills (Brown, 1984a). In addition, more than half of the entering children required treatment for some medical or dental problem. Compared with non–Head Start children, children attending Head Start were more likely to receive treatment for their health problems, and fewer had medical problems at posttest (Brown, 1984b). Nutritional services were found to be important as well, providing essential nutrients to children whose diets were deficient upon entering the program (Brown, 1984c).

Research has also documented the importance of mental health services. One study of 1,680 Head Start participants found that one third were referred for psychological services, most often due to concerns about socioemotional development (Mowder, Unterspan, Knuter, Goode, & Pedro, 1993). Reviewers studying the impact of support services in Head Start programs affirm their importance to this low-income population and recommend extending and strengthening such services (Piotrkowski, Collins, Knitzer, & Robinson, 1994; Zigler, 1994).

Although little information could be located about the prevalence and impact of support services in other industrialized nations, from the existing evidence one can assume that the services would be beneficial to low-income or at-risk populations. Further research is needed to explore the impact of such services in low-risk populations.

PARENT INVOLVEMENT

The theoretical background for promoting parent involvement in preprimary care and education derives largely from the ecological systems theory of Bronfenbrenner (1989). Childrearing is viewed as a joint endeavor between the home and the child care setting, and the linkages between the two (the child's mesosystem) are important for supporting the well-being of the child. Frequent, clear communication between parents and program staff fosters consistency and predictability in the child's world. The child experiences continuity across environments when parents and staff members share information and agree on consistent approaches to problem solving and daily routines (Doherty-Derkowski, 1991). It is important for the communication to flow in both directions; for example, parents should know about special programs or significant events at preschool, and teachers or caregivers need to know if a child has not slept well or has relatives visiting at home.

However, parent involvement goes far beyond basic communication about individual children's needs. It encompasses a range of activities, depending on program goals, available resources, and the characteristics of particular children and families. In a broader context, involving parents presents opportunities to both strengthen early childhood programs (for example, through parents' volunteering in classrooms and helping with fundraising activities) and enhance parents' knowledge of child development and parenting skills through educational programs. In addition, giving parents an opportunity to participate in decision-making roles, such as serving on planning or advisory committees, may improve overall program quality by helping staff understand parents' values and concerns and by giving parents a deeper understanding of program goals.

Doherty-Derkowski (1991) lists the following types of parent-related activities to illustrate the range of possibilities:

- Parent newsletters
- Regular parent-staff meetings to exchange information about the child
- Volunteering for special activities, such as field trips
- Volunteering in the program on a regular basis
- Serving in a decision-making capacity, such as on a parent advisory committee or board of directors

In addition to these more formal types of parent involvement, there are spontaneous and informal opportunities for parents and staff to exchange information, such as during drop-off and pickup times (Endsley & Minish, 1991).

Culture and parent involvement

Although parent involvement in programs has benefits for parents, teachers, and children alike (as illustrated in a later section), it is not valued equally in early childhood programs around the world. The emphasis on parent involvement in different countries depends in part on cultural differences in their history and purpose of preprimary care. For instance,

- The Reggio Emilia region in northern Italy has a long-standing history of cooperation between home and school, rooted in the region's history of community activism against fascism during World War II. Parents and others in the community become deeply involved in local preschool projects (Edwards, Gandini, & Forman, 1998).
- In Norway, authorities determined in the early 1970s that day care centers were too homogeneous and did not reflect the rich variety of local culture. In an effort to change this, parent involvement was emphasized. The present goal is to view parents as a resource for integrating local customs and culture into the preprimary programs (Bø, 1993).
- In France, a history of distance between parents and teachers has resulted in parents' becoming more assertive about their right to participate in their children's programs (Coombes, 1993). This has led to the establishment of a new program model—the parental day care center—in which parents participate in teaching and administrative activities.

In programs providing public child care primarily to enable women to work outside the home, parents or program staff may have little interest in parent participation in program activities. However, there is an increasing recognition of the importance of teachers and parents working in partnership and that, as partners, parents should have the opportunity to influence the objectives and methods of the programs they use (Phillips & Moss, 1989). According to Cochran (1993), there is a "global shift . . . in the direction of greater parent involvement" (p. 644). He believes this shift is taking place for different reasons in different parts of the world. For example, in many eastern European countries it is part of the movement away from state control of preprimary programs. Historically, parents in these countries have been uninvolved in the care and education system, and now both parents and teachers need to be educated about the value of parental input in program planning and children's care (Foteeva, 1993). In countries with a long history of high-quality early childhood services, such as those in Scandinavia, increased parent involvement reflects a desire to better cater to family routines and needs. In some developing countries, such as Kenya and Nicaragua, involving parents in children's preprimary care is a part of the community development and empowerment effort; in other countries, such as China and India, government initiatives focused on preventive health care and family planning are part of parent education programs provided through early childhood services. These examples illustrate the rich variety of purpose and content of parent activities in early childhood programs in different environments.

Throughout the world, changes in family function and structure have created a greater need for support services for families with young children. Families are relying more on their children's caregivers for childrearing advice and support as increasing numbers of mothers enter the workforce, families move away from their place of origin, and extended family members are no longer available to provide advice and care. In the United States, in particular, large numbers of young, single mothers with little experience in childrearing have come to rely on child care staff for advice and support in caring for their children. Given these changing family circumstances, early childhood education experts in the United States and Europe recommend expanding supports to parents through the child care and education system (Head Start Bureau, 1984; National Academy of Early Childhood Programs, 1991; Phillips & Moss, 1989; Powell, 1987). Providing education and support for families through early childhood programs also makes good sense in the developing world, where family and community ties are traditionally close (Kagitcibasi, 1996).

Some programs have a long history of parent support and involvement, such as the Head Start program for disadvantaged preschoolers in the United States. Performance Standards for Head Start require parent involvement in program policymaking decisions and curriculum development. Parents also participate in staff-parent conferences and home visits to discuss their children's progress. In addition, Head Start centers must offer parents educational programs in health, nutrition, and child development; provide information about community resources; and encourage parents to participate in community advocacy activities (Head Start Bureau, 1984). Head Start programs employ designated staff to help meet these ambitious criteria for parent involvement.

Although Head Start offers the most comprehensive program for parent involvement in the United States, the importance of such involvement is recognized and encouraged by early childhood professionals throughout the country. NAEYC accreditation standards advocate frequent communication with parents through conferences, newsletters, informal conversations, and special programs. NAEYC standards also specify that early childhood programs must have an open-door policy and must encourage parent visits and participation (National Academy of Early Childhood Programs, 1991). The PCCS survey of a nationally representative sample of preprimary programs in the United States showed that in almost three quarters (73%) of the settings teachers hold regularly scheduled meetings with parents to discuss their children's care. An additional 9% of settings reported that teachers talk to parents during drop-off and pickup times or on an irregular basis. Staff at almost one quarter of the settings make home visits (Kisker et al., 1991).

This survey also examined the types of activities parents were directly involved in at their children's centers, such as volunteering in classrooms, raising funds, or attending educational programs. Table 2.3 presents selected PCCS survey findings by type of setting. The most frequently reported parent activity, found in 73% of all setting types, was simply dropping in to check on the program or their children. In almost one half of the settings, parents participated in fundraising activities. Attending workshops, volunteering in classrooms, and helping to monitor classroom activities were also fairly common. Only in Head Start settings did large percentages of parents become involved in staff selection and budget reviews. It is clear from the PCCS findings that Head Start programs are much more likely to involve parents in a variety of ways than other setting types; this is not surprising given the federal mandate for parent involvement in Head Start.

Table 2.3 Percentage of parent involvement in preprimary settings in the United States by type of setting

	Type of Setting				
Type of Activity	All Types $N = 1,811$	Head Start $N = 231$	Public School $N = 255$	Religious $N = 240$	Other $N = 1,085$
Volunteer in classroom	28	88	45	24	20
Help select staff	16	78	9	11	10
Review budgets	21	80	20	21	13
Help choose and monitor activities	26	89	37	17	19
Help with fundraising	49	70	35	50	48
Help with maintenance	18	34	8	14	17
Drop in	73	89	82	74	70
Attend workshops	40	91	64	33	32

Note. Adapted from Kisker et al., 1991.

Cochran (1993) points out that while parent activities in preprimary programs in the United States serve many practical purposes, parent involvement is also related more subtly to the increasing diversity of culture found in the United States:

> At a deeper level the interest in parent involvement in the United States reflects the parental need to monitor the programs their children attend, partly because the diversity of values and norms in the United States results in a situation in which parents cannot assume that the values and expectations of the child care program are consonant with their own. (p. 645)

Research on the effects of parent involvement

The diversity of parent involvement discussed above demonstrates the difficulty of summarizing research in the field. Parent involvement in preprimary programs has been the subject of a great deal of research, particularly regarding the effectiveness and impact of different types of parent participation. It is beyond the scope of this chapter to present a comprehensive review; however, it is useful to examine the main areas of study and important findings to date.

There have been many evaluations of parent involvement and parent education programs, including small, stand-alone programs and those that are part of more comprehensive services (Gomby, Larner, Stevenson, Lewit, & Behrman, 1995; Kagitcibasi, 1996). Rather than focus on these types of programs, the present review looks at research that examines some particular aspect of parent participation in preprimary programs. It should be noted that all of the studies reviewed here were carried out in developed nations and that much of the research in the United States has taken place in Head Start programs. The research studies can be broadly categorized by the type of parent involvement. We will focus primarily on three general types: parents as intervenors with their children, parents as informants and assessors of their children, and parent-staff communication.

Parents as intervenors. The results of one review and meta-analysis of studies in the United States, in which parents acted as supplemental intervenors for their children (i.e., performed some activity with their children designed to improve child performance), showed no support for the claim that parent involvement leads to better outcomes for preschool children (White, Taylor, & Moss, 1992). However, the authors pointed out that their negative findings do not necessarily apply to other types of parent involvement or to other outcome measures. Also, most of the studies included in the review were carried out prior to 1985 and included samples of disadvantaged, at-risk, or handicapped children. The authors acknowledged the low methodological quality of many of these studies and encouraged better designed research as well as research into the effects of different types of involvement on parents and other family members.

More recent studies with low-income families have demonstrated positive effects on children's language and preliteracy skills when parents were trained to carry out specific reading interventions with their children (Lonigan & Whitehurst, 1998; Neuman, 1996). In a study assessing the effects of a more general intervention, parents of 4-year-old children in a university-based preschool program were randomly assigned to take part in a 3-month training program emphasizing developmentally appropriate practices. Results showed that parents who participated in the training were more supportive and had more age-appropriate expectations for their children than those parents who did not participate. The children from participating families also demonstrated better social skills than children from nonparticipating families (Draper, Larsen, & Rowles, 1997). Results from these studies suggest that parents trained as intervenors can, in fact, have a significant positive impact on their children's development.

Parents often participate in preprimary programs in more general ways, for example, as classroom volunteers. The impact of informal parent participation in the classroom was explored in a French study in which investigators videotaped parent-child interactions in day care centers for disadvantaged children (Tijus, Santolini, & Danis, 1997). A careful analysis of the components of interactions (e.g., complexity, semantic content, and cognitive assistance) during a cognitive task showed that parents enriched the task in many ways. For example, parents drew children's attention to the task and focused on specific aspects of the task in ways that teachers could not. The authors suggest that parent participation in children's activities promotes more complex cognitive interactions and thus helps to mediate the effects of social disadvantage. A related U.S. study showed that parent involvement, defined as serving as a classroom volunteer and following up on teacher-suggested child activities, was modestly predictive of improved classroom behavior and gains in learning skills in Head Start children (Taylor & Machida, 1994). These results are similar to the conclusions drawn from a meta-analysis of Head Start research that indicated that parent participation in Head Start had modest positive effects on children's school performance (McKey et al., 1985).

Parents as informers and assessors. Another way in which parents can provide valuable assistance to child care and education staff is as informants about their children. The premise is that parents have gained valuable knowledge about their children from years of observation and interaction with them, and this knowledge can assist professionals in making more accurate child assessments. In the United Kingdom, Wolfendale (1998) advocates this approach and has gathered descriptive data that indicate that written responses from parents concerning questions about developmental tasks are useful to professional assessors in a preschool setting. In a U.S. longitudinal study examining the usefulness of parent reports as predictors of early reading skills, low-income parents were interviewed about their preschool children's literacy skills and literacy-related activities at home (Dickinson & DeTemple, 1998). Correlational analyses revealed that mothers' reports were strongly related to their children's literacy skills in first grade. The authors suggest that parent reports be combined with teacher assessments when measuring children's development. The authors also advise that parent reports can be especially helpful in revealing children's hidden strengths, particularly when performance on traditional assessments is poor. They argue that drawing on parent expertise can also help schools build parent-teacher relationships based on mutual respect and trust.

Parent-staff communication. Much of the communication between parents and staff of preprimary settings takes place on an informal basis during drop-off and pickup times; in fact, this type of communication may be the most common at some centers. Endsley and Minish (1991) made a detailed examination of communication during drop-off and pickup times at 16 proprietary centers in the United States. They found that the frequency and dynamics of this communication were highly variable across centers and that in 43% of cases, no communication between parents and staff occurred at that time. As expected, in most cases when communication did occur, it was of a routine nature, and when focused on the child it mainly addressed immediate concerns. The authors suggested that if centers do not provide other opportunities for parent-staff communication (e.g., newsletters, conferences, home visits), drop-off and pickup times should be used to foster better communication with parents.

Parent-staff communication has been associated both with children's behavior and quality of centers. In one of the first studies investigating the relationship between parent-staff communication and the behavior and adjustment of 3- to 4-year-old children attending kindergartens, New Zealand researchers found many small but significant correlations between the quality of parent-staff communication and children's behavior (Smith & Hubbard, 1988). For example, when communication between parents and staff was warm and reciprocal, children were more likely to talk with teachers. Good parent-staff communication was also related to children's positive social interactions with peers. In cases where parent-staff communication was positive, children were perceived by staff to be well adjusted; however, in a correlational study of this nature, the direction of causality cannot be determined. It is possible that staff were predisposed to relate more positively to the parents of children whom they considered to be well adjusted.

Two recent correlational studies in the United States examined the relationship between parent-staff communication and center quality. In a sample of proprietary centers, investigators found a positive relationship between measures of parent involvement (derived from director interviews) and

Parents and teachers in this U.S. setting use drop-off and pickup times to exchange information about children.

observational measures of program quality (Endsley, Minish, & Zhou, 1993). A second study looked at the relationships among parent-staff communication, quality of care, and center sponsorship (Ghazvini & Readdick, 1994). Frequency of parent-staff communication and quality of child care were positively correlated; also, for-profit centers reported less frequent parent-staff communication and were found to be of lower quality than subsidized programs. Both studies showed a positive relationship between measures of parent involvement and center quality; however, due to the nature of the studies, the direction of the causal path cannot be determined.

Results from the High/Scope Preschool Curriculum Comparison Study demonstrate that the actual *amount* of teacher-parent contact may be less important than the *content* provided. In this study children were randomly assigned to one of three groups, each experiencing a different preschool curriculum model: High/Scope, Nursery School, or Direct Instruction. Teachers in each group also met with parents in biweekly home visits to reinforce intervention based on the particular curriculum being used at school. Although each of the three groups received the same amount of preschool and parent intervention, only the High/Scope and Nursery School curriculum groups showed evidence of long-term social benefits for children (Schweinhart & Weikart, 1997).

Although standards and guidelines in the early education field emphasize involving parents in programs, centers vary greatly in their views and practices regarding parent involvement. Burton (1992) looked at differences in beliefs about relationships between families and early childhood programs among public school, child care, and Head Start teachers in the United States. Results from a questionnaire developed for the study showed that Head Start teachers expressed the most consistent family-centered beliefs, while most public preschool teachers expressed the belief that their programs focused exclusively on meeting the needs of children. Child care teachers held mixed beliefs regarding their relationship with families. Burton pointed out that the structure and daily routine of programs affect parent-staff communication and that public school programs, in particular, lack opportunities for parents and teachers to communicate informally, such as at drop-off times. She reiterated Powell's statement (1987) that more research is needed to examine how the structure of physical settings, staffing patterns, and other center characteristics influence parent-staff communication.

Effects of involvement on parents. The research reviewed thus far has looked at the effects of parent involvement in preprimary programs on children's behavior, but what of the impact on the parents themselves? This is an especially difficult area of research to summarize because of the uneven and often poor quality of available research and the large number of outcome variables studied. Most of the research on this topic has taken place in Head Start programs. Although many modest positive effects on parents and families have been documented in Head Start research, reviewers express concern about the reliability of the findings and note the need for well-designed research in this area (Leik & Chalkley, 1990; McKey et al., 1985).

A recent study of Head Start children entering kindergarten explored the mechanism underlying the impact of parent involvement. The study looked at the relationship between parents' participation in a program designed to foster their self-efficacy (Head Start Transition Demonstration Program) and their children's academic abilities at the end of kindergarten (Seefeldt, Denton, Galper, & Younoszai, 1999). Structural modeling revealed that both parent education and participation in the Transition Demonstration Program were positively related to parent self-efficacy and that parent self-efficacy strongly predicted children's academic ability. The authors suggest that parents who believe they are efficacious may also believe they have a significant role to play in their children's education and act on that belief in ways that build a sense of efficacy in their children. These parents may also be more apt to work with the school system to ensure that their children are being taught well.

In summary, several studies have demonstrated that positive communication between parents and preprimary staff is related to positive outcomes in children and higher quality preprimary programs. Parents should be respected as informants about their children, and their information is most helpful when provided in a formal written manner, such as responses to questionnaires or notes in a record book. Recently, carefully designed studies have provided evidence that parents can also be effective as intervenors with their children in preprimary programs, contradicting the negative findings in much of the earlier research. In programs for disadvantaged children, parent intervention with a specific focus (e.g., literacy skills) can boost child performance. Research evidence also indicates that there are positive effects on parents from their involvement in preprimary programs, but there is a need for well-designed studies that focus more specifically on such effects.

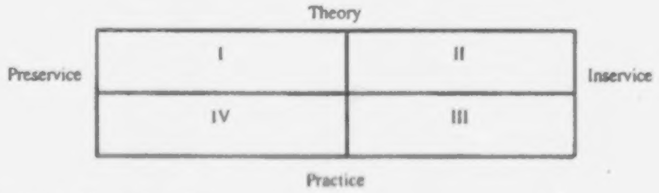
TEACHER CHARACTERISTICS

In the following section we will examine characteristics related to teachers in early childhood settings, such as training, education, and turnover, all of which have been associated with teacher-child interaction and child behaviors in several large-scale national studies in the United States (Cost, Quality, & Child Outcomes Study Team, 1995, 1999; Layzer et al., 1993; Whitebook et al., 1989). The vast majority of the early child care and education workforce is female, and in most countries those who work in preprimary settings, whether or not they have postsecondary education, are poorly paid compared to others with similar educational credentials (Myers, 1995; Schweinhart, 1997). Typically, a distinction is made between those who work in child care settings, often referred to as child care workers, and those who work in preschools, usually referred to as teachers. Child care workers generally have minimal postsecondary preservice education and are not viewed as professionals, while teachers usually have some type of postsecondary teacher training and may have completed a university-based early education program. Teachers who have completed postsecondary training in early childhood education may or may not be accorded professional status (Bredekamp & Willer, 1993), depending on a country's traditions and other cultural factors.

TEACHER EDUCATION

The training or education of teachers and child care workers has been identified as one of the most important factors in establishing high-quality early childhood programs (Evans, 1997), and issues related to this topic are being explored and debated around the world. Perhaps the primary concern is defining the most appropriate models of preservice and inservice education for early childhood care and education staff.

Evans characterizes methods of training and education of preprimary staff along two dimensions: one along the continuum of theory and practice and the other along the continuum from preservice to inservice (see Figure 2.1). Although the range of available training programs covers the entire grid, the predominant training model, particularly in developed countries, is preservice training with a theoretical focus (Quadrant I). However, there is no consensus within or among developed nations as to how to best achieve this training goal.



Note. Adapted from Evans, 1997.

Figure 2.1 Approaches to training in early childhood care and education

Teacher education in European countries

European Union member states are questioning the appropriateness of having lower levels of training for staff working in the welfare system (i.e., child care workers) than for those working in the education system (preschool teachers). All member states have now adopted a system that requires 3 years of postsecondary training to obtain a qualification for preprimary teaching. In about one half of the member states this training is provided by universities; in others it is offered by non-university establishments of higher education (European Commission, 1995). In some countries, such as France and Ireland, preschool teacher training is identical to that for primary school teachers. However, among child care workers in member countries there is a wide range of training, from no specialized training at all to 3 or more years in an institution of higher education (European Commission Network on Childcare, 1996).

In the United Kingdom, there is currently a debate between those who believe the vocational system is adequate for training child care staff and those who believe that the best way to advance the field is through the system of higher education. National Vocational Qualifications (NVQs) were introduced in the U.K. in 1991 to provide national standards in all vocations. Candidates in the child care field must meet specific competence standards and are assessed through workplace observations

(O'Hagan, 1994). It has been argued that the NVQ system of accreditation will upgrade the quality of the early childhood workforce. However, opponents believe that vocational training and certification results in only minimal competence and that higher quality can be achieved through training within the higher education system (Calder, 1996).

One recent study of preprimary education in Europe found that countries throughout Europe are moving to upgrade their education programs for preprimary staff. Teacher education programs are moving away from promoting a didactic teaching approach with children toward advocating a more developmentally appropriate, child-centered approach. Increasingly, preservice programs for preprimary staff are focusing on providing professional education in an academic atmosphere (Pascal & Bertram, 1993).

Teacher education in the United States

There is a movement in the United States, as well, to upgrade or professionalize careers in early education and care (Bredekamp & Willer, 1993). Under the present system, educational levels of preprimary staff range from no postsecondary or specialized training in early childhood to a bachelor's or master's degree in early childhood education obtained from a university. However, the majority (93%) of preschool teachers (not including assistants or aides) have had *some* special training in child care or early education (Kisker et al., 1991). Table 2.4 presents findings from the PCCS study related to teacher education in the United States.

Table 2.4 Education and training of teachers in ce[illegible]r-based programs in the United States by type of program

	Type of Center-Based Program			
Type of Education or Training	Head Start *N* = 231	Public Preschool *N* = 255	Religious-Sponsored *N* = 240	Other *N* = 1,087
Average percentage of teachers who have completed				
Graduate degree	10	38	8	11
Bachelor's degree	35	50	42	31
Associate's degree	18	6	11	13
Some college	7	4	16	17
CDA/Vocational program	29	1	8	11
High school or GED	1	2	14	16
Less than high school	0	0	0	1
Percentage of teachers who have had				
CDA training	59	19	11	25
Teacher training	34	51	37	35
Child care workshops or courses	62	49	62	54

Note. Adapted from Kisker et al., 1991.

As the table illustrates, teachers in public preschool programs are the most highly educated; 88% have obtained bachelor's degrees or higher. One half of teachers in religious-sponsored centers and 45% of teachers in Head Start programs have similar credentials. Almost all teachers in Head Start and public preschool programs have education beyond high school, while about 15% of teachers in religious-sponsored and other types of programs have no formal education beyond secondary school.

According to the PCCS study, Head Start teachers are far more likely than teachers in other types of centers to have obtained a Child Developmental Associate (CDA) credential. The CDA is a credential based on standards of competence and is granted on the basis of observation and assessment by the Council for Early Childhood Professional Recognition (Benson & Peters, 1988). This credential was developed especially for caregivers without a college education and grew out of the need for qualified teachers in the Head Start program. The CDA was established in the early 1970s by a consortium of organizations concerned with upgrading the quality of care for young children through improving the competency of caregivers (Phillips, 1990).

There are two routes to obtaining the CDA credential. Candidates having experience working with children and having at least 120 hours of formal education in child care can apply through the direct assessment route; they take no further courses but are observed in the classroom and take a written examination. For individuals with no prior experience or education in the child care field, a 1-year training program is offered in association with local colleges and universities. Upon completion of the training program, candidates are evaluated for the CDA (Council for Early Childhood Professional Recognition, 1995). The CDA has become an increasingly popular route to competency among child care workers in the United States and is recognized (though not necessarily required) in most states as an entry-level teaching credential in child care centers and Head Start programs. However, CDA training remains separate from public school teacher preparation, which leads to a 4-year college degree (Benson & Peters, 1988).

Educational requirements for preprimary teachers and caregivers in the United States are complex and vary from state to state and according to children's age. One study found that as of 1996, only 18 states required any specialized early childhood preservice training for child care teachers (Center for Career Development in Early Care and Education, as cited in Snow et al., 1996). Most states offer inservice training for preprimary staff, although the number of hours required annually varies greatly across states.

Teacher education in developing countries

As mentioned earlier, preservice training with a theoretical focus is the predominant training model in developed countries; however, this model does not meet the needs of most developing countries as there is often a shortage of trained early childhood personnel in these countries (documented in Phase 1 of the IEA/PPP, Olmsted & Weikart, 1989). As in developed countries, staff in school-based preprimary programs in developing countries are often more qualified than those in child care programs. School-based staff are likely to have some type of postsecondary education but often lack specific early childhood training. Child care staff often lack both formal education and specific training in how to care for young children (Epstein, 1995). Positions in child care are viewed as low status, and child care workers are poorly paid. Where training programs do exist, Myers (1995) notes that often "the context for training is an informal programme focused on child development leading to jobs that are 'volunteer,' paying a gratuity well below the minimum salary" (p. 297).

Some scholars have suggested that in countries where there is a shortage of staff with early childhood education credentials, inservice training may be the best educational alternative (Epstein, 1995; Myers, 1995; Schweinhart, 1997). One alternative to extensive preservice training has been effective in Kenya, where rapid population growth has led to the establishment and staffing of preschools by untrained parents (Evans, 1997). This model involves inservice training that emphasizes practical knowledge and skills. Kenya has designed a system based in district training centers, where local teachers receive intensive training during school holidays and on-the-job training during the school year. At the end of a 2-year training period teachers receive a certificate in early childhood education. Inservice training is also an appropriate and efficient means to provide professional staff from other disciplines, such as primary teachers or nurses, with specific training in early childhood education.

It is important that inservice training programs not be static and uniform across or within countries; individual programs must be responsive to local customs and needs. Epstein (1995) points out that "in the developing world, as much as in developed countries as diverse as the United States, sensitivity to local issues within a country must also be part of the training plan" (p. 8). In India, for example, each region has its own cultural traditions and economic environment; it is impossible to have a single model of training that would serve the needs of personnel across the country.

Research related to teacher education

A large body of research supports the importance of the education and training of preprimary teachers and caregivers. In studies in the United States and Bermuda, teacher training and education levels have been positively linked with both teacher behaviors and child outcomes. Teachers and caregivers with higher levels of education and training interact more positively with children in their care (Arnett, 1989; Berk, 1985; Howes, 1983; Howes et al., 1998; Layzer et al., 1993; Ruopp et al., 1979; Whitebook et al., 1989). Furthermore, levels of teacher education and training have been positively associated with children's cognitive and social development (Ruopp et al., 1979; Whitebook et al., 1989).

The NDCS was the first large-scale national study in the United States to demonstrate a strong association between teacher training and teacher and child behaviors (Ruopp et al., 1979). Researchers found that lead teachers with child-related training engaged in 30% more social interaction with children than teachers without such specialized training. Children in classes led by teachers with specialized training were observed to be more cooperative and compliant compared to children in classes led by teachers without specialized training, and they demonstrated more involvement in and a longer duration of attention to activities. In addition, children in centers where one half or more of the caregivers had specialized preparation demonstrated greater gains in cognitive test scores than children in other centers. The investigators did not find a similar pattern when they examined the effects of the amount of formal education without regard to specialized content in early childhood education. However, the typical caregiver in their study had less than 2 years of postsecondary education, and the sample was likely restricted in the range of education of caregivers compared to more recent studies.

More recently, the authors of the NCCSS (Whitebook et al., 1989) found links between teacher training and teacher behavior that led them to conclude that "there appear to be alternative routes to effective teaching for preschool teachers" (p. 46). The investigators found that teachers with either a bachelor's degree or specialized training at the college level were more sensitive in their interactions with children and showed higher quality caregiving skills than teachers with no bachelor's degree and either no training or training only at the high-school or vocational-school level. In this study, however, sample selection factors may have played a role. That is, teachers who have received college-level training are likely to come from a higher socioeconomic level than teachers with no college training and thus may have been exposed to more appropriate caregiving models during their own childhoods. It is also possible that teachers with college-level training are more highly motivated to succeed in their profession than teachers without such training. The NCCSS also demonstrated a positive association between appropriate teacher behaviors and better child performance on measures of competence, such as vocabulary and attachment behavior.

Researchers involved in the CQCO (Cost, Quality, & Child Outcomes Study Team, 1995) found that level of teacher education and amount of specialized training were among the primary factors associated with quality in child care settings. Furthermore, both at the time of the original study and in a follow-up study when the children were in second grade (Cost, Quality, & Child Outcomes Study Team, 1999), children's cognitive and social development were positively related to the quality of their child care experiences. These findings are especially meaningful because the authors included a wide range of setting quality in their sample and were able to control for child and family background characteristics that were related to selection of child care settings and children's developmental outcomes. Based on the findings from their original research and follow-up study, the authors recommend a renewed emphasis on teacher preparation and expansion of inservice and preservice training systems.

Findings regarding the relative influence of specialized child-related training versus more general college-level training are unclear. In most studies it is impossible to separate the effects of formal education and specialized training; that is, even those teachers with a bachelor's degree in a non-child-related field have experienced some specialized training. In an attempt to disentangle the effects of these two variables, Howes (1997) utilized data from two previous large-scale studies and included only teachers who fit clearly into defined background categories. Her findings confirmed that teachers with the most advanced training or education in early childhood were most effective and that teachers with 2-year degrees and teachers with CDA certification were more effective than teachers with some college training or just high-school degrees and workshop training.

Another difficulty with most studies of the effects of teacher education is the likelihood that there are pre-existing differences in motivation and other factors between groups varying in educational level. Results from a study in Bermuda (Arnett, 1989) that examined the effects of four levels of teacher education highlighted this. Level 1 participants had no previous training (although most planned to complete the Bermuda College four-course training program); level 2 had completed the first two courses in the Bermuda College program; level 3 had completed the entire training program; and level 4 had obtained 4-year degrees in early education. It was assumed that there were few pre-existing differences between caregivers at the first three levels. As expected, level 4 teachers were distinctly different from other groups; their attitudes and behaviors toward children were more positive. These differences were attributed to pre-existing differences in intelligence, motivation, and other factors, as well as to the effects of their educational background. More interesting are the findings for the other three groups. Caregivers at levels 2 and 3 were found to be very similar in their interactions with children; both groups were less authoritarian and more positive than caregivers with no training. The author attributed these findings to the effects of courses in communication and child development given in the first year of the training program and concluded that even a brief training program, if it includes subjects directly related to children and caregiving, can be effective.

As previously discussed, inservice programs may be the most efficient training method, especially in developing countries. Researchers have documented that inservice training affects the quality of children's experience in preprimary settings. NCCSS results showed that teachers with 15 hours or more of inservice training engaged in more appropriate caregiving and had more positive interactions with children than teachers with less than 15 hours of training (Whitebook et al., 1989). Research has further shown that participation in inservice training, beyond teachers' formal education, is a significant predictor of program quality, provided that it satisfies certain criteria: The training must include both theory and practice components, actively involve participants, take place over multiple sessions with opportunities for participant sharing, and provide feedback to participants based on classroom observations (Epstein, 1993). Additional evidence for the effectiveness of practical experience comes from Snider and Fu (1990), who found that supervised practical experience combined with formal education is a particularly effective method of helping teachers learn developmentally appropriate practices.

Clearly, the amount and type of education that preprimary practitioners experience affect their practices in the workplace and ultimately the quality of education and care children receive. Both inservice and preservice education have been found to be effective in improving the skills of teachers and caregivers, and programs that focus on child-related issues and emphasize practical application are likely to have the greatest impact on teacher behavior.

As teacher educators struggle to define and refine the content of teacher education programs, there is debate about the appropriateness of emphasizing developmentally appropriate practice in all settings. This notion has characterized the field of early education for some time, especially in western countries. However, some scholars in the United States argue that teacher expectations based on child development theory fail to take into account the social forces that affect poor and minority children (Goffin, 1996). They point out that notions of childhood are culturally constructed and that environment and culture have a significant impact on development. Katz reminds us that "conceptions of what is normal at any stage of development and at end states probably vary widely within as well as between cultures" (1996, p. 142). In recognizing the importance of community and cultural influences on the experience of childhood, perhaps educators in western industrialized countries are learning lessons already recognized by those working in developing countries.

TEACHER EXPERIENCE

In contrast to the research on teacher education and training, there is little evidence in the literature to show that the amount of experience teachers have has an effect on teacher behavior or child outcomes. It is difficult to even find reliable statistics reporting the number of years of experience of preprimary teachers and caregivers in countries around the world. In the United States, the NCCSS reported that 29% of teachers and 58% of teaching assistants in their sample had been working in child care 3 years or less, while 19% had 10 years' or more experience. Number of years of experience varied according to job title. Teacher-directors were the most experienced, followed by teachers; assistants and aides had the least amount of experience.

In the late 1970s, the authors of the NDCS concluded from their findings that the number of years of experience working in the early childhood field did not contribute significantly to the quality of care provided (Ruopp et al., 1979). In the ensuing years, these findings have remained largely uncontested. Most recently, CQCO findings (Cost, Quality, and Child Outcomes Study Team, 1995) showed that while teacher experience was not related to child care quality, administrators' experience was one of the three most important factors related to the quality of care (the other two were staff-child ratios and staff education). This finding is not surprising in light of the wide range of administrator responsibilities, including organization, curriculum planning, staff development, and monitoring of center quality.

STABILITY OF STAFF

The final discussion on teacher characteristics concerns the stability of preprimary staff and the effects of staff turnover on children. As in the case of teacher education and experience, the major studies of the effects of staff turnover come from the United States. The NCCSS team began tracking staff turnover in their sample in 1988, with follow-up studies in 1992 and 1997 (Whitebook et al., 1989; Whitebook, Howes, & Phillips, 1998; Whitebook, Phillips, and Howes, 1993). Center directors reported fluctuations in staff turnover for the 12 months preceding each of the three data collection periods. In 1988, the average turnover reported for all teaching staff was 41%. In 1992 that figure dropped to 26%; in 1997 it rose to 31%. The authors caution that between 1988 and 1997 their sample changed significantly. A disproportionately large number of centers reporting the highest turnover in 1988 were closed as of 1997; thus, the remaining sample may have overrepresented centers with lower-than-average turnover. The authors note that despite the drop since 1988, a turnover rate of 31% is still very high, especially when compared to annual turnover rates of 3.1% for teachers in public kindergartens and 16% for teachers in private kindergartens.

The NCCSS also found variations in turnover by job title and center auspice (see Table 2.5). Annual turnover for teachers in all centers (27%) was less than that for teaching assistants (39%). Turnover was higher in for-profit centers than nonprofit centers, with for-profit chains having the highest annual staff turnover at 45%. Turnover for teaching assistants was especially high in for-profit centers, with more than 50% of assistants leaving their jobs during the previous 12 months. Findings from the PCCS, which tracked turnover for teachers only, are comparable, with an average annual turnover rate of 25% and the highest turnover rates (39%) in for-profit chains (Kisker et al., 1991).

Table 2.5 Percentage of annual staff turnover in the United States by program auspice

Program Type	All Teaching Staff	Teachers	Assistants
Independent for-profit	35	27	59
For-profit chain	45	42	54
Independent nonprofit	28	27	34
Church-related nonprofit	26	20	33
All centers	31	27	39

Note. Adapted from Whitebook et al., 1998.

In the United States, the high turnover rates among preprimary staff are attributed largely to low wages. Turnover rates are higher in centers paying lower wages and higher for lower paid staff, such as assistants and aides (Whitebook et al., 1989). The high turnover among preprimary staff is a matter of concern and has been linked to children's behaviors and program quality. The NCCSS (1989) found that children in centers with higher annual turnover rates spent less time engaged in social activities and more time in aimless wandering. They also had lower vocabulary scores than children in centers with lower turnover. However, in this study turnover rates were confounded with center quality; centers with higher annual turnover tended to be lower in overall quality.

In an attempt to more accurately identify the effects of teacher turnover, Howes and Hamilton (1993) did a longitudinal study of the relationship between teacher change and children's social behaviors, controlling for center quality. Children with a higher number of changes in teachers were rated lower in gregarious behaviors and higher in social withdrawal and aggression than were their peers who experienced fewer changes. Further, the authors found that "for older children, the experience of changing a primary teacher was mediated by the nature of the teacher-child relationship. If children changed primary teachers and changed to a less positive teacher-child relationship they were most aggressive" (p. 29). The authors believe their results suggest that children use their teachers for emotional support and that teacher-child relationships are not interchangeable.

These findings are consistent with attachment theory, which proposes that children develop attachments to their parents over time on the basis of shared interactions and that secure attachments form the basis for positive growth and exploration. Recent research extends attachment theory to relationships with caregivers in child care settings and suggests that children who are able to form secure attachments to their out-of-home caregivers are more socially competent with peers (Howes et al., 1992).

Thus, research from the United States highlights the effects of teacher turnover and the importance of addressing factors that contribute to it, such as low wages. Research from other countries is needed to help us understand cultural effects on teacher turnover and the resulting impact on children's well-being.

SUMMARY AND CONCLUSIONS

Structural characteristics of early childhood settings are important from both a practical and a theoretical standpoint. Structural characteristics provide the underpinnings for the preschool or child care environment and therefore either directly or indirectly affect almost all aspects of children's experience in that environment. A large body of research has demonstrated that many structural characteristics, such as staff-child ratio, teacher education, and staff turnover, are related to setting quality and children's behaviors. Therefore, a better understanding of these relationships can lead both to improvements in early childhood settings and insights into the processes of child development and early education.

Structural characteristics can be understood and evaluated only within a cultural context. The history, traditions, economics, and form of government of a particular country all affect the nature of early child care and education in that country. Policy decisions on both national and local levels have an impact on all aspects of child care and education, from availability and financing to regulation and quality control. The provision of preprimary care and education varies widely across countries; however, demand for and enrollment in early childhood programs is increasing worldwide as more and more mothers of young children enter the workforce and there is a growing awareness of the importance of a child's early years to later development.

Preprimary services are usually administered through either a country's welfare or education system, and the structural characteristics of programs are strongly affected by this distinction. Services tied to the education system generally strive to promote cognitive development or school readiness.

In contrast, services administered by the welfare system often serve to provide child care for working mothers; in developing countries, they may focus on providing health and nutritional services. Program goals affect decisions about operating hours, group size, staff-child ratios, physical characteristics, resources, and staffing patterns.

Research in early education and child care in developed countries has firmly established links among certain structural characteristics, center quality, and child outcomes. Specifically, more favorable staff-child ratios, higher levels of teacher education, and greater staff stability are positively related to quality of care and children's social and cognitive development. However, as most of the large-scale studies examining these relationships have taken place in the United States or other industrialized countries, the results must be interpreted in this context. It is possible that there are factors operating in developing countries that would moderate the effects of structural variables on quality and outcome. Another difficulty with much of the existing research is that family and teacher background characteristics are often confounded with other setting and child variables. Recent studies have attempted to control for these effects, but the results must be interpreted cautiously, with a recognition of possible confounding factors.

More research is needed to evaluate the effects on children of the many types of parent involvement and support services in preprimary programs. Research in this area is especially complicated because of the wide variety in program design and goals. Although early research did not demonstrate that parent involvement had an effect on child outcomes, more recent, carefully designed studies have found positive effects from such involvement, and it is likely to be a fruitful area for future investigation.

Structural characteristics are important because they provide the foundation for a child's preschool experience. Characteristics such as staff-child ratios, group size, and teacher education are easily regulated and have served as useful markers for monitoring quality in preprimary settings. However, most researchers agree that these characteristics also serve as proxies or marker variables for underlying classroom dynamics that affect process quality. Throughout the rest of the IEA/PPP we hope to learn more specifically how structural characteristics are related to process quality and how these relationships differ in countries around the world. We will look for links between important structural characteristics and classroom dynamics. Monograph 3 of the Phase 2 study will explore both teachers' and children's activity in the classroom and the interaction between them. In Monograph 4 we will link the classroom dynamics findings to structural characteristics of settings, family background, and children's developmental status.

COUNTRY-LEVEL PREVIEWS OF STRUCTURAL CHARACTERISTICS

III

NATIONAL PROFILES OF THE STRUCTURAL CHARACTERISTICS OF PREPRIMARY SETTINGS IN VARIOUS NATIONS

Geneviève Hindryckx, Belgium; **ZongPing Xiang,** China; **Mikko Ojala,** Finland; **Christos Frangos,** Greece; **Sylvia Opper,** Hong Kong; **Diah Harianti,** Indonesia; **Nóirín Hayes,** Ireland; **Lucio Pusci,** Italy; **Olayemi Onibokun,** Nigeria; **Malgorzata Karwowska-Struczyk,** Poland; **Eva Bahovec,** Slovenia; **Mireia Montané,** Spain; **Nittaya Passornsiri,** Thailand

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Poland

This chapter presents profiles highlighting structural characteristics of each country's education and care settings for 3- to 5-year-old children. The profiles provide a general picture of what was known about these settings in each country at the time of the Phase 2 Provider Survey data collection.[a] The period of data collection varied across countries but in most countries took place between 1992 and 1993 (exact dates for each country are in Chapter 4). Each country's profile is based on institutional or government statistical data or findings from research studies available at the time of data collection. The completeness of the profiles varies from country to country, thus the need for the Provider Survey's representative investigation of early childhood settings (the findings of which are discussed in Chapters 5–10). If a country has undergone major changes in preprimary policy or services since the time of data collection—for example, an increase or decrease in the number of early childhood programs or new requirements for teacher certification—to the extent possible these changes are noted in the profile.

Each country's profile begins with a brief overview or abstract of the setting characteristics of early childhood education and care in that country. Following this is a more detailed narrative of the characteristics, presented in a common format for all country profiles:

- *Management policies*—sponsors, licensing and supervision, admissions, records maintenance, fees, staffing
- *Patterns of operation*—weeks and days open, times of operation, enrollment, group size, staffing ratio
- *Physical setting*—rooms and space, space per child, structure of space, materials and equipment

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[a] No national profile was available from Romania.

- *Additional services*—support services, outside resources, home-setting contact
- *Teacher characteristics*—general characteristics, teacher training, teacher certification

As with the overall profile, the amount of detail for a given category will vary across countries, depending on the information available in each country's databases and research reports. The key characteristics delineated in the profiles are the focus of the Provider Survey findings presented in Chapters 5–10.

HOW TO REVIEW THE PROFILES

The following points should be considered as readers review each country's profile, compare countries, and compare the profile information to the data subsequently collected by each country for the IEA Preprimary Project (IEA/PPP).

CURRENTNESS OF INFORMATION PROVIDED

As noted earlier, the profiles are based on the best information available at the time of the Provider Survey data collection. However, readers should keep in mind that early childhood services are not static in any country. Due to a variety of factors, this information may rapidly become obsolete. For example, ongoing changes in government policies (e.g., welfare reform legislation in the U.S.) and social trends that affect child care needs and usage (e.g., growing numbers of women in the workforce, an increase in single-parent families) influence child care and education policies and practices. However, even with such shifts in policies and social trends, the country profiles and Provider Survey data together provide a fairly accurate picture of setting characteristics across the participating countries.

VARIATION IN SETTING LABELS

The labels used to refer to each type of early childhood setting often vary across countries and sometimes within countries. This may be due to historical factors, a specific focus or population served (e.g., Head Start in the United States), or local customs. For example, in various countries the same label may refer to settings that serve different age groups; in one country *kindergarten* may refer to classes for 5-year-olds, while in another country *kindergarten* refers to preprimary classes or centers for 3- to 6-year-old children. Within some countries, certain labels (e.g., *nursery schools* and *preschools*, *child care* and *day care*) essentially refer to the same type of early childhood setting and are used interchangeably. Rather than employ a standardized terminology across countries, the profiles reflect the typical language referents used within each country. These labels are defined so that settings may be appropriately differentiated. To the extent possible, within countries, setting labels used in the profiles are consistent with those used in the chapters presenting IEA/PPP Phase 2 findings.

EXAMINATION OF THE STATISTICS AND ADDITIONAL INFORMATION

In general, the amount of detailed statistical and other information presented in the profiles is likely to be greater in countries with a longer history of preprimary education and care. Often such countries were able to draw from a range of reports or databases to report considerable statistical data for all or some relevant categories. Other countries, however, have only recently realized a need for more early childhood education and care services and have less data and information to report. Thus, the amount of information in the profiles will vary across countries and even across categories within a particular country. For example, in some countries government-sponsored settings may be the only ones that have accurate data, whereas in other countries government agencies have no system for record keeping or statistical compilation. Although every effort was made to use accurate and up-to-date sources, in cases where little or no information was available, statements are based on what is generally thought to be the case.

Readers should keep in mind that the statistics and other information provided have come from a wide range of different sources and will vary according to perspective or level of analysis—some data pertain to all *settings* in a country or in rural or urban areas, whereas other data pertain to all *children* in a country or in rural or urban areas. For example, one country profile may present the percentage of kindergarten settings out of all the existing early childhood settings in that country, while another country profile may present the percentage of all that nation's children who attend kindergarten settings.

In each of the Provider Survey findings chapters, the discussion section relates selected findings from the survey to information from the country profiles presented in this chapter. Readers are encouraged to make comparisons of the national profile information and the Provider Survey data to gain a more complete picture of the current status of early childhood settings. Such comparisons may be of use in making future policy and research decisions. Readers should bear in mind, however, that comparing countries *to one another* is of limited usefulness, since each country's philosophical, economic, and historical foundations are unique.

BELGIUM

Belgium (Fr.—Liège Province, Brussels)—***The country of Belgium is a federal State composed of three Communities (Flemish-, French-, and German-speaking) and three Regions (Flemish, Waloon, and Brussels). The constitutional reforms of 1980 and 1989 transferred responsibility for education from the State to the Communities. The French Community has an extensive preprimary education system for children between the ages of 2½ and 6 years. Although preprimary education is not compulsory, almost all preschool children attend nursery schools, which are overseen by the Ministry of Education. Nursery schools are open for morning and afternoon sessions and are free of charge. For children under 3 there are a variety of day care options, organized mainly by the welfare system. The following sections present information about nursery schools in the French Community, the settings where IEA/PPP Phase 2 data were collected.***

MANAGEMENT POLICIES AND STAFFING

Sponsors

In the French Community of Belgium there are three main types of preprimary educational institutions: public nursery schools subsidized by the French Community but managed by local authorities (Communal schools); public nursery schools organized, managed, and financed in total by the French Community (Community schools); and nonpublic nursery schools, also referred to as free schools, which are mainly denominational (e.g., Catholic) and are also subsidized by the French Community.

Licensing and supervision/inspection

The Ministry of Education of the French Community is the supervisory body for all preprimary education and is responsible for program planning and regulation of nursery schools. Any authority establishing a school must follow government rules in order to obtain state subsidies. Standards for sanitary conditions, teacher-child ratios, and equipment are usually under central control. Inspections by French Community supervisors, each having responsibility for about 250 teachers, take place periodically. In addition to inspecting the school, supervisors may provide inservice training for teachers. Educational institutions subsidized by the French Community choose their own teaching methods and curricula on the prior approval of the Minister. They also have their own supervisors for pedagogical matters.

Admissions

All children between the ages of 3 and 6 are entitled to enroll in nursery school in the French Community of Belgium. Children who are at least 2½ years old and are mature enough physically and psychologically to participate in a group setting are also eligible for admission. Families have complete freedom of choice when selecting schools.

Records maintenance

Nursery schools keep records on attendance, family background, and children's progress in the educational program. Nursery school curricula provide recommendations and guidelines for educational aims and activities in different subjects, taking into account children's age levels. Assessment, utilizing child observation, is seen as an integral part of the teaching and learning process. Upon completion of nursery school, children are informally evaluated on basic competencies necessary for success in primary school.

Fees

Nursery schools in the French Community of Belgium are generally available to all children free of charge; only a very small number of nonpublic schools charge fees to parents. However, parents must pay for school lunches, transportation, extracurricular activities, and services beyond regular school hours, when these are available.

Staffing

The nursery school teacher has responsibility for all curricular activities in her or his class. The support personnel most commonly available are custodial staff. In some cases the teacher is assisted by a *nursery nurse,* who has responsibility for the youngest children. In a few cases, a special teacher is available to provide instruction in sports, and a supervisor is available for any care provided beyond regular schools hours.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Nursery schools operate on a full-day, 5-day-a-week basis except for Wednesday afternoons, when schools are closed. Nursery schools are open for a minimum of 182 days per year. The school year starts at the beginning of September and finishes at the end of June, with periodic breaks for public holidays.

Times of operation

Nursery schools are generally open from 8:30 to 12:00 for morning sessions and from 1:30 to 3:30 for afternoon sessions. Children may attend one or both sessions.

Enrollment

About 98% of all children in Belgium between 3 and 6 years of age attend nursery schools. Approximately 50% attend Communal schools, 10% attend Community schools, and 40% attend free schools.

Group size and staffing ratio

In most nursery schools, children are divided by age into one of three groups. In the French Community, the regulatory standard is 1 teacher for the first 19 students, 1.5 for 20 to 25 students, and 2 teachers for 26 to 38 students. Surveys have shown that the ratio varies from 1 adult per 15 children to 1 adult per 30 children, with an average of 18 children per adult.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

On average the space available in nursery school classrooms is about 68 square meters (m^2), but there is considerable variation across settings. In addition to classrooms, many schools are equipped with a gymnasium and a dining hall.

Density/space per child

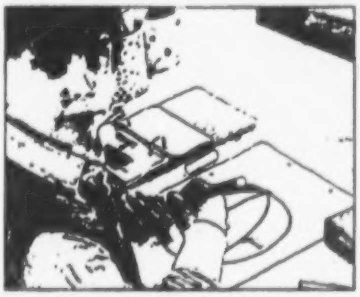
By estimating that an average nursery classroom is about 68 m^2 and there are an average of about 20 children in such a classroom, the space per child in Belgium is about 3.4 m^2 per child.

Rooms/space structured for children

Building structures for nursery schools in the French Community of Belgium are generally traditional and built for school use; most are primary school buildings. All schools have playgrounds, but these are not necessarily planned specifically for use by very young children. In addition to a gymnasium and dining room, some schools may also have a video room, reading room, projector room, playroom, theater, and workroom, but nursery school children do not usually have access to these rooms.

Materials/equipment

In most cases nursery schools in the French Community have materials for construction, such as blocks; materials for art and dramatic play, such as dolls and painting supplies; musical instruments; literacy and math materials; and materials for developing psycho-motor skills.



This child in a Belgian French Community nursery school is learning color recognition and fine-motor skills.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Many nursery schools offer child care for a fee before and after school hours and on school holidays. Lunch and transportation may also be offered on a fee-for-service basis.

Outside resources

Nursery school children in the French Community have access to several types of support services organized by the schools. In most cases the services available are health related, but special education and social services may also be available.

Home-setting contact

The most common types of teacher-parent contact in nursery schools are informal talks and meetings. More formal meetings may also be requested by the teacher, and parents may assist in school activities.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

The amount of experience among nursery school teachers varies. In the French Community, more than a third of the teachers have more than 21 years of experience and are over 40 years of age. About 25% of nursery school teachers have less than 10 years of work experience. All preprimary teachers in the French Community receive the same remuneration, and salary levels for preprimary teachers are nearly equal to those of primary school teachers.

Training

Training for teachers at the nursery school level, as well as for primary school teachers, is provided through teacher-training institutions (non-university higher education). The initial training lasts 3 years. Practice teaching experience alternates with theoretical courses covering general training, child psychology, and didactics. At present, there are no university-based educational programs in early childhood education.

Certification

A teacher diploma is required to teach in nursery schools. The diploma is granted to those completing their studies at teacher-training institutions.

CHINA

China (PRC, 6 provinces)—***Kindergartens that provide both child care and education are the most common preprimary setting in China. In urban areas, 80%–90% of children between 3 and 6 years old attend kindergartens. Children under age 3 are taken care of at home or in day care nurseries. In contrast, only 25%–30% of preschoolers in rural areas attend preprimary programs; children under age 6 are generally taken care of at home by their parents or grandparents. Some children in rural areas attend preschool instead of kindergarten. Preschool is offered for 1 year*** *before primary school and emphasizes preacademic skills and school readiness. The following sections provide more detailed information about kindergartens, the preprimary settings where IEA/PPP Phase 2 data were collected.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

There are four major categories of sponsors for kindergartens: local governments, state-owned factories, neighborhood organizations, and private individuals.

Licensing and supervision/inspection

The State Education Commission issues laws regulating kindergarten administration. These laws apply to all preprimary programs, regardless of sponsorship. Each local Board of Education, however, is in charge of licensing and supervision. In practice, it is difficult to personally supervise each program; therefore, boards provide guidance through written documents and training.

Admissions

According to state legislation the age of admission to all kindergartens, regardless of sponsorship, is 3 to 6 years. Priority for admission to a particular kindergarten is given to children living nearby; kindergartens sponsored by factories, however, give children of employees priority for admission.

Records maintenance

All kindergartens are required to keep health records on children; most also keep records of background information and immunizations.

Fees

Kindergartens are for the most part supported by parent fees. Fees vary and are somewhat higher in urban areas than in rural areas, but most urban parents receive government or employer subsidies to offset the expense. Neighborhood-sponsored kindergartens in urban areas usually obtain some subsidies from the local government, but kindergartens in rural areas are usually self-supporting.

Staffing

Kindergarten staffs includes principals or directors, who are responsible for administrative tasks; teachers, who are responsible for classroom management and planning; and care workers, who are in charge of child care and hygiene.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Kindergartens are generally open 5 days per week year-round. They are closed 2–3 weeks for winter vacation and 4–5 weeks for summer holiday; however, in many programs teachers rotate their vacations so that children whose parents work during these times can still attend school. In rural areas, there may be more schedule variations during busy farming seasons or in cold weather.

Times of operation

In urban areas, kindergartens usually open at 7:30 in the morning and do not close until 6:00 in the evening. In most rural kindergartens, children attend from 8:00 to 11:30 a.m. and return for an afternoon session from 2:00–5:00 p.m.

Enrollment

In urban areas, 80%–90% of children between 3 and 6 years old attend kindergartens. In contrast, only 25%–30% of preschoolers attend preprimary programs in rural areas, where children under age 6 are generally taken care of at home by their parents or grandparents. Enrollment in rural areas varies, with larger numbers of children attending programs in more developed areas and fewer children enrolled in poorer regions.

Group size and staffing ratio

By state regulation, group size in all kindergartens is limited to 20–25 children for 3- to 4-year-olds and 25–30 children for 4- to 5-year-olds. In kindergartens where meals and naps are provided, the state requires 2 teachers and 1 care worker per group; in kindergartens that do not provide these services, only 1 teacher is required for each group. The ratio of staff (including teachers, administrators, and support personnel) to children in regular (nonboarding) kindergartens should be 1:6 or 1:7. In boarding kindergartens the ratio should be 1:4 or 1:5.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

In urban kindergartens, there is at least one playroom and a bathroom for each group, and some settings also have a sleeping room for each group. In a few settings, there may also be a multipurpose room for music or indoor physical activity. Rural kindergartens usually have one room set up like a classroom, with bathrooms in a central location outside the classrooms.

Children in a rural preschool in China participate in a music activity outdoors.

Density/space per child

There are no state regulations specifying the amount of space per child; however, playrooms are required to be a minimum of 50 m^2.

Rooms/space structured for children

Urban kindergartens are generally arranged with groups of six children seated around tables. An increasing number of urban kindergarten rooms also have activity corners with drama, music, science, and reading areas. In rural kindergartens rooms are structured more like traditional classrooms than playrooms, and children sit facing a blackboard. Each kindergarten is required by law to have an outdoor play area.

Materials/equipment

The State Education Commission issues a suggested list of materials and equipment for both indoor and outdoor activities. Examples of suggested materials include dolls and costumes for dramatic play; blocks, crayons, and watercolor paints for construction and art; slides, swings, and jungle gyms for gross-motor play; and a piano or an organ for music. The quantity of equipment varies from classroom to classroom. There are more materials in urban kindergartens than in rural kindergartens.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

General health care, immunizations, and health checks are available on site. Only a very few kindergartens provide transportation or counseling. Generally, there are no special services for handicapped children in regular kindergartens.

Outside resources

Kindergartens usually organize one or two field trips to parks during each school year. Some urban kindergartens invite special teachers to give the children instruction in subjects such as art, dance, and English. Parents pay extra fees for these services.

Home-setting contact

Parents come once or twice during the school year to meet the teachers and learn about school activities. Some kindergartens have organized *open days* when parents are welcome to visit their children's activities, but very few programs invite parents to join in activities with children. Sometimes parents talk with teachers about their children when they come to pick them up from kindergarten.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

In urban areas, teachers typically are female and between 20 and 40 years old; approximately 50% have more than 5 years of work experience. Teachers in rural areas typically are also female but tend to be younger and have fewer years of work experience than their urban counterparts.

Training

Kindergarten teachers are required to have 2–3 years of preservice training, which occurs at the high-school level. A small number of principals and head teachers have obtained college-level training in teachers' colleges. Many kindergartens regularly organize staff inservice training within their schools.

Certification

State regulations specify that to be certified a teacher must have a high-school diploma with 2–3 years of preservice training. Those who have no preservice training must pass an examination. In practice, many teachers in rural settings do not meet current training requirements. As of 1995, principals of government-sponsored kindergartens are required to have a college diploma.

FINLAND

Finland—*Preprimary child care in Finland is organised almost entirely around public day care services. The Day Care Law, enacted in 1973, guarantees public day care for every child between the ages of 1 and 6 years. Services are offered primarily in day care centers and family day care homes; preschool activities for a small number of 6-year-olds are organised within primary schools. Approximately 30% of 3- to 5-year-olds and about 60% of 6-year-olds are cared for in day care centers. An additional 30% of 4-year-olds are cared for in family day care homes. The following sections present information about day care centers and family day care homes, the settings where IEA/PPP Phase 2 data were collected.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

At the national level, day care services are administered by the Ministry of Social Welfare, which grants authority to local communal governments to manage day care centers and family day care homes through social welfare boards. Local authorities receive state aid to subsidize the costs of operating day care services.

Licensing and supervision/inspection

Both day care centers and family day care services are supervised and inspected by municipal social welfare boards under the authority and guidelines set forth in the Day Care Law. Among other things, inspectors focus on whether general conditions for education and care are acceptable and whether fees for child care have been determined correctly according to the law.

Admissions

Public day care is offered to children between 1 and 6 years old. Admission is open to all children; however, priority is given to children of working parents, single parents, and students, and to children with learning and developmental disabilities. In general, family day care homes serve younger children, aged 1 to 3 years, while children between 3 and 6 years attend day care centers.

Records maintenance

Records for children in public day care provide basic information about children and families, including information about children's eating, sleeping, and play habits and developmental and day care history. Family records include information about parents' marital status, occupation, income, education, and work schedules. Records are kept in family day care homes as well, but they are likely to be more limited in scope.[a]

Fees

Fees for public day care services are similar in day care centers and family day care homes and are determined by family income. In some cases, such as when parents are unemployed, they may be exempt from fees or may make payments based on a sliding scale. In addition to revenue from parent fees, local authorities may receive state aid for the cost of operating day care services.

Staffing

Each day care center has a director along with one kindergarten teacher and two care persons for each group of 3- to 6-year-olds. In family day care homes, the provider takes responsibility for the education and care of approximately 4 children. In the public day care system, the family day care provider is employed and paid by communal authorities.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

According to the Day Care Law, day care centers and family day care homes offer services year-round to meet the needs of parents. Services are generally available 5 days per week. Typically day care begins in August and ends in June; however, some centers and family day care homes will also operate in July if needed.

Times of operation

Both day care centers and family day care homes are generally open from 6:30 a.m. to 5:00 p.m. Children in full-time care usually spend 8 to 10 hours per day in their settings; those in part-time care spend 4 to 5 hours. Day care centers also offer special services for children whose parents work evenings or nights.

Enrollment

Approximately 30% of 3- to 5-year olds are cared for in day care centers. Children are grouped on the basis of age and educational factors. If necessary, a special education group is organized within the day care center; however, a small number of children needing special education services can be integrated into one of the other groups. Day care centers typically serve approximately 50 children, with a maximum size of 100 children. An additional 40% of 4-year-olds are cared for in family day care homes, where one caregiver can enroll up to 4 children.

Group size and staffing ratio

For day care centers operating full-time, the maximum group size is twenty 3- to 6-year-olds, with 1 kindergarten teacher and 2 assistants. In part-time day care centers the maximum group size is 25 children, with 1 kindergarten teacher and 1 assistant. Family day care homes typically have one caregiver for 4 children; in group family day care settings, there are 2 to 3 caregivers for 8 to 12 children.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Day care centers must have a minimum space of 500–700 m^2 per center, including the surface area of the building, outdoor playground, open areas, driveways, and parking space. Space for general use in day care centers, for example, a gymnasium or auditorium, must be at least 36 m^2. The Day Care Law requires that family day care homes be inspected and approved for public use. Inspections focus on safety factors and the environment's suitability for children. In order to be approved, a family day care home must have areas for personal care, eating, and undisturbed rest; a play area with at least 7 m^2 of space per child; and access to a suitable outdoor play area.

Density/space per child

For children aged 3 to 6 years, interior space must be at least 6 m² per child; outdoor play space must allow 10 to 20 m² per child.

Rooms/space structured for children

A typical day care center has several rooms specifically designed for children's use, including a free-play room with a child's kitchen, a room for construction and art activities, an auditorium for large-group activities and movement, a room for resting, an entrance hall, and a bathroom. Each day care center also designates a portion of interior space for small-group play. In addition there is typically a common space, such as an auditorium, which is used for play, construction, music, and movement in large groups. Each center also has access to an outdoor space designed for play, construction, and movement. Family day care in the public day care system is typically offered in the home of the provider.

Skiing is a favorite outdoor activity at child care centers in Finland.

Materials/equipment

Day care centers are furnished with a variety of materials for art, music, language, mathematics, and science, as well as with equipment for indoor and outdoor construction and motor play. Most of these same materials are available in family day care homes, although there may be more limited variety. Media-related materials, such as television, recordings, and occasionally computers, are also available in centers and homes.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Both day care centers and family day care homes offer two snacks and lunch daily. Special education, psychological, and medical services are available by referral, and there is no cost to parents for these services. Public day care also offers services for children with special needs and disabilities at no extra charge for parents. The care is organized by special kindergarten teachers and specialists and is offered in both day care centers and family day care homes. In an attempt to facilitate parent-child education, some family day cares are *open day care centers* and provide education and care for a maximum of 15 children and parents. Parents in these centers receive training in child care and education.

Outside resources

Services promoting physical and psychological health, such as dental care, speech therapy, special education, and family clinics, are provided to children in day care free of charge. Cultural resources include puppet theaters, visits to children's concertinas, and music lessons (for a small fee). Many parents attend these events with their children.

Home-setting contact

In day care centers and family day care homes, the most common communication between staff and parents is through informal daily contact, telephone calls, and newsletters. In day care centers events such as open-house days and parents' evenings are organized especially for parents. Staff consult with parents as necessary in order to better understand a particular child's educational needs.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

The large majority of teachers in public day care centers are females between 20 and 50 years of age. Almost all have completed high school and thus have had at least 12 years of full-time education between ages 7 and 19. With only a few exceptions, all family day care providers are female and have had an average of 9 years of full-time education. Family day care providers as a group are somewhat older than day care center teachers, ranging from 30 to 60 years of age.

Training

Three-year, bachelor-level training programs at universities are available to those wishing to become preprimary teachers. Training programs for day care assistants are offered through vocational institutes approved by the Ministry of Social Affairs and Health. These programs are 1 year in length for high-school graduates or 2½ years for those with less than a high-school education. Family day care providers are trained through a 250-hour course approved by the National Board of Vocational Education and must have a 16-hour course in first aid as well. Preprimary teachers may also pursue training for a special kindergarten teacher diploma, a 1-year training course offered through a university. Continuing education is required for all child care personnel in centers and family day care homes; courses last from 1 to several days.

Certification

Upon completion of their training, kindergarten teachers receive a Bachelor of Education degree and are qualified to be leaders of day care centers and head teachers for child groups. They are responsible for planning, implementing, and evaluating the day care center's educational activities. A special kindergarten teacher qualification is required for teachers working in day care centers serving children with special needs. After completing their vocational training, family day care providers in the public day care system must complete an interview process conducted by two persons (usually a family day care supervisor and a psychologist, nurse, or social welfare officer) before they can begin to care for children.

GREECE

Greece (urban)—*Several types of preprimary programs exist in Greece, including kindergartens (for ages 3½ to 5½ years), child care centers (for ages 3 years and above) and nurseries (for* *infants to 4-year-olds). Approximately 60% of preschool-aged children attend kindergartens (public or private), 30% attend child care centers (public or private), a small percentage attend nurseries, and the remaining children are cared for at home. Although the structure of preschool education in Greece has remained constant, there has been a renewed interest in teacher training in the past 2 decades, resulting in improvements in preservice and inservice preprimary teacher education. The following sections provide information on public kindergartens and public and private child care centers, the types of settings where IEA/PPP Phase 2 data were collected.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

Most preprimary settings in Greece are publicly sponsored. Public kindergartens are sponsored by the Ministry of Education and state child care centers by the Ministry of Welfare and Social Security. Private individuals and organizations, such as charities, workers' unions, and local authorities (e.g., villages), also sponsor kindergartens and child care centers.

Licensing and supervision/inspection

Kindergartens are licensed and inspected by the Ministry of Education; child care centers are licensed and inspected by the Ministry of Social Welfare. Periodic inspections are scheduled to assess physical space, facilities, equipment, adult-child ratios, staffing, management, and compliance with health, fire, and safety regulations. Kindergartens are inspected every 6 months; child care centers are inspected annually. Private settings must be licensed through the national government. As of 1996 (after the IEA Phase 2 data collection) child care centers began to be supervised more frequently by local authorities.

Admissions

Admissions criteria include age and area of residence. Kindergartens accept children from 3½ to 5½ years old; public and private child care centers accept children 3 years old and older. Public child care centers give priority to children from low-income families and to children of working parents and single parents.

Records maintenance

Records most commonly kept in all settings are background and medical information and general records.

Fees

Public kindergartens are free of charge. All other preprimary settings, including private kindergartens and public and private child care centers, charge fees to parents. Fees in public child care centers are much lower than fees in private child care centers and kindergartens.

Staffing

In general, there is 1 teacher per class and 1 janitor per school. In some settings there are teachers who also function as directors. Private settings often employ specialized teachers (such as art teachers) and teacher assistants in addition to teachers and staff who are responsible for cleaning and supervising the area. Some public child care centers also employ a cook.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

All kindergartens and child care centers are open 5 days per week. Kindergartens operate approximately 42 weeks per year and are closed during school vacations and on public holidays. Public and private child care centers operate 44–48 weeks per year and are open during school holidays.

Times of operation

Public kindergartens operate half-day sessions. Morning and afternoon groups alternate from one week to the next, attending in the morning one week (8:30–9:00 a.m. to 12:00–12:30 p.m.) and attending in the afternoon the next (2:00–5:30 p.m.). Private kindergartens are open from 8:00 or 9:00 a.m. to 2:00 or 3:00 p.m. Both public and private child care centers are open from 7:00 a.m. to 4:00 p.m.

Enrollment

Approximately 60% of preschool-aged children attend kindergartens (public or private), 30% attend child care centers (public or private), a small percentage attend nurseries, and the remaining children are cared for at home. According to data collected in 1993, approximately 64% of children between 3½ and 5½ years of age attended publicly funded programs. An estimated 76% of these children attended half-day kindergartens, while 24% were in full-day programs. Approximately 3% of children in kindergartens attend a private institution.

Group size and staffing ratio

Kindergartens are generally small in size, with one or two groups organized according to age. Group size can vary from 7 to 30 children; two groups are formed if there are more than 30 children. The number of children per teacher in public kindergartens is lower than in private kindergartens (approximately 16:1 and 24:1, respectively). In child care centers, there is typically 1 teacher for up to 30 children.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Most preprimary settings include classrooms with at least 25 m² of space (the minimum allowed by regulations), a bathroom, and a room for adult use.

Density/space per child

Regulations require a minimum of 1.68 m² space per child.

Rooms/space structured for children

Rooms in all types of preprimary settings are furnished with tables, chairs, low shelves, child-sized toilets and sinks, and a quiet area for reading. Classrooms typically have interest corners for free play and a group space for storytelling and music. Most preprimary settings also have an outdoor play area, and some have a garden.

Materials/equipment

There are no specific requirements for materials and equipment in preprimary settings. Generally, settings have materials for arts and crafts, dramatic play, and construction, along with books and equipment for large-muscle activities.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Medical services are available in some settings on a limited basis; for example, a doctor may visit the setting once per year. Dental services are available by referral in some settings.

Outside resources

A variety of resources and activities are available, including art, music, computers, drama, and foreign languages. Field trips include visits to local theaters, zoos, railway stations, and shops.

Home-setting contact

Informal contact between parents and staff takes place daily during pickup and drop-off times. By law, group parent meetings must be scheduled two or three times per year. Home visits and individual parent meetings are not required but may be scheduled at staff or parent request.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

Almost all teachers in preprimary settings are female. Age and years of experience vary.

Training

University-based training has been available for the kindergarten level since 1982. A university education includes field practice and courses in research, theory, and teaching methods. Current teach-

A professional gardener visits a Greek center to teach the children about planting.

ers without university degrees may earn degrees through participation in special programs. Teachers in child care centers may have vocational training in child care or, in some cases, no specialized training. At the time of the IEA Phase 2 data collection there was only one inservice institute in the country, in Athens.

Certification

At the time of data collection for Phase 2, there were no requirements for teacher certification. A university degree is required for teachers in kindergartens and a university or vocational degree is required for teachers in child care centers.

HONG KONG

Hong Kong (SAR)—*All children aged 3 to 6 years attend preschools, either child care centers (commonly known as day nurseries) or kindergartens. Day nurseries serve children 2 to 6 years old and frequently offer whole-day programs; kindergartens serve children 3 to 6 years old and generally offer 3-hour programs. Eighty-five percent of children aged 3 to 6 years attend kindergartens, and the remaining 15% attend day nurseries. There have been major governmental changes to the former British colony since it became a Special Administrative Region (SAR) to the Peoples' Republic of China in July 1997 (after Phase 2 data collection). It is unlikely, however, that this change will have a significant impact on preprimary education in Hong Kong, since education is an internal issue for the SAR and will continue to be managed by the Hong Kong government. The following sections provide information on day nurseries and kindergartens, the types of settings where IEA/PPP Phase 2 data were collected.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

The majority of preschools are sponsored by religious nongovernmental, private profit-making, or private nonprofit organizations. Religious sponsors are more common among day nurseries; private profit-making sponsors are more common among kindergartens.

Licensing and supervision/inspection

All day nurseries are licensed and regularly inspected by the Social Welfare Department. They are governed by the Child Care Centres Ordinance (1982) and Child Care Centres Regulations (1982). All kindergartens are licensed and regularly inspected by the Education Department. They are governed by the Education Ordinance (1985) and Education Regulations (1980).

Admissions

In compliance with official regulations governing day nurseries and kindergartens, all preprimary programs use age as a criterion for admission. Day nurseries accept children from 2 to 6 years old; kindergartens accept children from the ages of 3 to 6 years. At 6 years of age children are eligible for primary education. In addition to age, preprimary programs use other criteria for admission; for example, day nurseries give priority to children from low-income families and to children of working parents and single parents. Some preprimary programs also base admission on certain child characteristics. For example, kindergartens may give preference to children who are able to care for themselves (e.g., are toilet trained), while day nurseries are more likely to admit children with special educational needs.

Children practice writing Chinese characters at this center in Hong Kong.

Records maintenance

Preschools generally keep records of children's attendance and family background and also educational/developmental evaluations. Most day nurseries, but fewer kindergartens, keep medical records.

Fees

Almost all preschools are funded by parent fees. Day nurseries use a sliding scale based on family income for the calculation of school fees, and a fairly large number are supplemented by the government or the religious organizations that sponsor them. The majority of day nurseries require monthly fees for 12 months of the year, whereas kindergartens generally require monthly fees for 11 months each year.

Staffing

The staff of almost all preschools includes an administrator (a supervisor in day nurseries and a principal in kindergartens), teachers (child care workers in day nurseries), and in a large majority of settings, a domestic helper to attend to routine tasks. About one half of preprimary programs also employ a director (to whom the administrator is responsible) and a secretary/clerk. Many day nurseries that offer full-day programs employ a cook. Most staff work full-time and are paid for their services.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

The majority of day nurseries are open for the entire year and close only for public holidays. Most kindergartens are open 41 weeks a year (those that offer a summer program are open for 46 weeks). Day nurseries generally are open Monday through Friday and for a half day on Saturday; kindergartens usually operate Monday through Friday only.

Times of operation

Day nurseries are usually open for 9–10 hours each weekday and for 4 hours on Saturday. Kindergartens generally run a 3-hour program, from 9:00 a.m. to 12:00 p.m.; a minority of kindergartens offer an afternoon session from 1:00 to 4:00 p.m.

Enrollment

All children aged 3 to 6 years are enrolled in some type of preprimary program, and many 2-year-olds attend day nurseries. Eighty-five percent of children aged 3 to 6 attend kindergartens, and the remaining 15% attend day nurseries. There is a wide range in the size of Hong Kong preschools, from approximately 50 to more than 800 children. Generally, center size is approximately 200 children.

Group size and staffing ratio

Average class size for 4-year-olds in day nurseries is 30 children, with 2 child care workers. Kindergartens have an average class size of 30 children, with 1 teacher.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Classrooms are 70 m^2 in day nurseries and 39 m^2 in kindergartens. Additional rooms are available in some preschools, such as music rooms, gross-motor rooms, and playrooms.

Density/space per child

There are no regulations pertaining to density; however, day nurseries have approximately 1.8 m^2 per child and kindergartens have approximately 1.2 m^2 per child.

Rooms/space structured for children

Rooms in most preprimary settings are furnished with child-sized chairs and tables, often grouped in small islands accommodating 6–10 children each. Low shelves with books and toys are generally located around the periphery of the room, sometimes set up as separate learning/play centers. All washrooms have child-sized toilets and sinks. The majority of preschools have play areas (open space for active, physical play) inside the building or access to an outside play area. Outside play areas are located on school property or within walking distance. Indoor play areas are used almost every day, often twice a day in day nurseries.

Materials/equipment

Preschools are equipped with materials for dramatic play, arts and crafts, and music; science and educational games; and equipment for large- and small-muscle play. Day nurseries generally have a greater variety of such materials and make daily use of many items, whereas kindergartens use materials on a rotating basis, with some items used on specific days of the week rather than daily.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

The most common services available in preprimary programs are snacks and transportation to and from home. Medical services, special education, and psychological services are available by referral in about 24% of preprimary programs.

Outside resources

Most programs take children on field trips approximately six times a year. Although it is not common to use outside persons as resources in the setting, some preprimary programs do use outside individuals to teach music and dance.

Home-setting contact

The most common contact between preschool staff and families is through newsletters, regular staff-parent meetings, and telephone calls. Parents are also invited to help on special occasions, such as field trips or school concerts.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

The majority of child care workers and kindergarten teachers are female, between 20 and 40 years of age, and have had approximately 11 years of full-time education, not including specific training in early childhood education.

Training

Child care workers are more likely than kindergarten teachers to have received basic training in early childhood education, because the Child Care Regulations stipulate that child care workers must undergo training within 1 year of joining a day care setting. No such stipulation exists for kindergarten teachers. Training for child care workers is offered through both preservice and inservice courses; however, only inservice training is available for kindergarten teachers. In 1995, when more than half of the kindergarten teachers were found to have received no training, the government sponsored an accelerated training program to ensure that by 1999, 60% of the kindergarten teachers would have achieved Qualified Kindergarten Teacher (QKT) status. A Master's Degree in Early Childhood Education is offered approximately every 4 to 5 years by the University of Hong Kong for senior ECE staff who have completed university.

Certification

A basic 2-year, part-time program culminating in the Certificate in Child Care constitutes certification for child care workers. As of 1995 day nursery supervisors are expected to have completed the Advanced Certificate in Child Care and Preprimary Education, which builds on the Certificate in Child Care. The 1-year and 1-summer program leading to the Qualified Kindergarten Teacher award provides qualified kindergarten teacher status. In 1995, a new 2-year, part-time Certificate in Early Childhood Education was introduced by the Hong Kong Institute of Education. At present, this program is restricted to kindergarten administrators and senior teachers and builds on the QKT award.

INDONESIA

Indonesia (Java)—*A small but unknown percentage of 4-year-old children in Indonesia attend preprimary care or education settings. Of those who attend such settings, the majority attend kindergartens; a small number attend day care centers or playgroups. Unless otherwise stated, information in the following sections pertains to kindergartens, the type of setting where IEA/PPP Phase 2 data were collected.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

In urban and rural areas, almost all kindergartens are sponsored by private foundations, community organizations, or religious organizations. A small number of kindergartens are sponsored by the government to serve as model demonstration programs. These model kindergartens are usually located in the capitals of provinces or districts.

Licensing and supervision/inspection

By regulation, the establishment of a kindergarten must be approved by the Ministry of Education and Culture. Institutions generally provide a supervisor for the private kindergartens they sponsor. In addition, there are district supervisors who provide supervision and guidance in the educational techniques recommended by the government.

Admissions

According to regulation, children are allowed to enter kindergarten when they are 4 years old. Specific admission policies are set by individual schools or institutions. The ability to speak the Indonesian language or a local language is also required.

Records maintenance

There are no specific policies related to record keeping. Kindergartens typically maintain records on children's background information, developmental assessments, medical information, attendance, and evaluations.

Fees

Although some kindergartens are supported financially by the government or private institutions, parent fees are the major source of support for most preprimary programs. Fees are generally determined on an income-based sliding scale; additional fees are charged for uniforms, books, and so on.

Staffing

The type of staff working in kindergartens varies a great deal among settings. Almost all kindergartens employ teachers, and some have headmasters and administrative staff as well.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

By regulation, kindergarten activities are conducted from Monday through Saturday for at least 2½ hours each day and at least 34 weeks per year.

Times of operation

Most urban kindergartens begin at 7:00 or 7:30 in the morning, although a few start as late as 8:00 or 9:00. Rural kindergartens may also open as early as 7:00 a.m., but all are open by 8:00. Most kinder-

A small group of children in an Indonesian kindergarten participate in a coloring activity.

garten sessions are 2½ to 3 hours long. Some kindergartens are closed between 12:00 and 1:00 p.m. and offer a second session for another group of children in the afternoon. Generally, sessions are somewhat shorter on Friday and Saturday.

Enrollment

There are no accurate statistics available regarding the number of 4-year-old children enrolled in preprimary programs in Indonesia. However, it is thought to be only a small percentage. The majority of 3- to 6-year-old children who attend preprimary programs attend kindergartens. From 1991 to 1992, when the IEA Phase 2 data were collected, kindergarten classes were arranged into three groupings on the basis of age: 3- to 4-year-olds attended Kindergarten A classes; 4- to 5-year-olds attended Kindergarten B classes; and 5- to 6-year-olds attended Kindergarten C classes. In recent years the criteria for grouping has changed, so that 3- to 4-year-olds now attend playgroups and 4- to 6-year-olds attend kindergartens.

Group size and staffing ratio

There are about 25 children per teacher in a preprimary program. There are no government regulations regarding group size.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

By regulation, kindergartens must be in buildings that are divided into several classrooms. Each classroom must be at least 8 m × 8 m in size. Additional rooms include an office, a clinic, a multipurpose room, a kitchen, separate bathrooms for teachers and children, a storage room, and a living area for the school warden or keeper. Many schools also have a leisure-activity room that serves as a learning resource area, with teaching guidebooks, library books, reference books, and teaching/learning materials. School buildings are surrounded by land that is at least three times the building area in size.

Density/space per child

There are no regulations regarding the amount of space per child. However, the amount of indoor space available for each child is thought to be approximately 2 to 3 m^2. In outdoor play areas the space available is estimated to be somewhat larger, approximately 6 m^2 per child.

Rooms/space structured for children

Classrooms are furnished with tables and chairs that can be arranged in rows or circles as needed. Children may move around the room and sometimes sit on mats on the floor or at tables, depending on the type of activity they are engaged in. Most classrooms have activity corners, with materials stored on shelves and in cabinets. Almost all schools have a large, fenced, grassy playground with play equipment. There are regulations to ensure a sanitary environment and safe water.

Materials/equipment

Classrooms contain age-appropriate equipment, including children's books; toys, such as dolls and blocks; and art supplies, including crayons, pencils, colored paper, and play dough. Outdoor playgrounds are equipped with a variety of play equipment, such as a sandbox, water containers, slides, seesaws, large and small balls, a balance board, and tricycles; as well as pets.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Some kindergartens offer the services of physicians, dentists, and psychologists, either on site or by referral. These individuals monitor children's health and psychosocial development. There are no statistics available regarding the number of programs that have such services, but it is thought to be only a small percentage.

Outside resources

There are no specific policies concerning the use of outside resources. Outside experts are typically consulted to deal with specific problems when necessary. Many kindergartens also have educational presentations by community resource persons, such as police or health officers.

Home-setting contact

Parents and teachers have contact through a variety of media, including group and individual meetings, newsletters, and magazines or bulletins. In addition, parents participate in school celebrations and events that display children's work.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

Teachers must be Indonesian citizens and at least 18 years of age. They must also demonstrate an appreciation of children and the Indonesian way of life.

Training

Kindergarten teachers should be graduated from a 3-year school of teacher education (SPG) with a specialty in kindergarten. To be admitted to an SPG, they must have graduated from a junior secondary school. Training in specific skills is also provided through short inservice courses.

Certification

Teachers must hold a kindergarten teaching diploma, which is granted upon completion of an educational program in an SPG.

IRELAND

Ireland—***A wide variety of preprimary services are provided in Ireland, including private nurseries for infants, private preschools for 3- to 5-year-olds, and junior classes in public primary schools. Services are sponsored through a number of avenues, including the government, private organizations, voluntary community organizations, and private individuals. Schedules of operation vary considerably, according to the type of service and age-range served. Services provided by the Department of Education are regulated through the primary school system; however, dur-***

ing the time of data collection (1994–1995) there were no government regulations in effect for child care settings sponsored by the private and voluntary sectors. Since then the Child Care Act, enacted in December 1996, has established regulations for setting characteristics of programs in the private and voluntary sectors, such as staff-child ratios, space, and safety features. The following sections of the profile provide information about government-sponsored early education settings (national schools) and private preschools, the types of settings where IEA/PPP Phase 2 data collection took place.

MANAGEMENT POLICIES AND STAFFING

Sponsors

The Department of Education sponsors preprimary classes, known as junior classes, in public primary schools and provides grants to a variety of special programs for disadvantaged children. The government also provides grants through the Department of Health to local organizations that run preschool programs for at-risk children. In the private sector, preschools (sometimes called playgroups) are sponsored by organizations such as the Irish Preschool Playgroups Association (IPPA), An Comhcoiste Réamhscolaíochta Teo. (Irish language playgroups called Naíonraí), Montessori Associations, the Steiner Association, and private nurseries. In addition, voluntary community organizations sponsor programs serving special local needs.

Licensing and supervision/inspection

Services sponsored by the Department of Education are regulated through the primary school system. A number of organizations sponsoring private services, such as the IPPA, An Comhcoiste Réamhscolaíochta Teo., and Montessori schools, provide voluntary standards for their programs. At the time of data collection the government did not oversee programs sponsored by the private or voluntary sectors; however, through the Child Care Act the government now has legal oversight (including regulation and supervision) of these programs.

Admissions

In general, admission to public and private programs is based mainly on age and economic factors. For example, state-supported junior classes in primary schools are offered free of charge to all 4- and 5-year-old children; the Rutland Preschool Project, funded by the Department of Education, serves disadvantaged 3- to 5-year-olds in the inner city of Dublin; and other preschools receiving government grants have been developed especially to serve the Irish Traveller community, a nomadic population. In the private sector, the IPPA offers services to 3- to 5-year-olds for a nominal fee based on parent income. Admission to services funded by the Department of Health for at-risk or disadvantaged children is generally determined by a selection committee, which takes into account criteria set by the sponsor, such as risk factors, age, and geographic area served.

Records maintenance

Record keeping varies from setting to setting. In junior classes within the primary school system, general developmental records are kept for each child. With the implementation of the Child Care Act in 1996, other preschool programs are now required to keep records on children, including at least basic demographic information. This was not the case at the time of data collection.

This child in a non-disadvantaged class in Ireland concentrates on her writing skills.

Fees

Services provided by the Department of Education, such as junior classes, are free of charge. Services provided by the private sector, such as Naíonraí playgroups and Montessori preschools, charge fees. The government provides subsidies for early childhood services, mainly through the Department of Health, as a social service to disadvantaged families.

Staffing

All primary schools have a principal, who may or may not be a teacher. Each junior class in primary schools has one teacher, except in smaller schools where two or three classes may be combined under the direction of one teacher. Larger schools have janitorial and caretaker services. In general, preprimary programs sponsored by the private or voluntary sectors are staffed by people with various training backgrounds who serve as teachers. Some large, full-time programs may employ cooks and cleaners.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Junior classes in primary schools are open from September to June, 5 days per week. Private preschools are generally open from September to June, 4 or 5 days per week. Schedules vary for full-day nurseries supported by the Department of Health, which may be open year-round, as many as 5 days per week. Private nurseries for children of working parents are open all year.

Times of operation

Department of Education junior classes in primary schools run 4 to 5 hours per day. Other government-sponsored programs for 3- to 5-year-olds operate from 2 to 6 hours per day. A majority of private preschools are part-time, operating 2 to 3 hours per day. Private nurseries have longer hours, often up to 10 hours per day.

Enrollment

A large percentage of 4-year-olds and 99% of 5-year-olds enroll in the junior classes offered in primary schools. There are no reliable statistics available for the number of children who attend early childhood programs sponsored by the private or voluntary sectors. However, a recent study of a sample of 4- and 5-year-olds indicated that 75% had experienced some form of out-of-home child care before they entered primary school.

Group size and staffing ratio

With the exception of early childhood services sponsored by the Department of Education, there were no regulations regarding staff-child ratios at the time data collection took place. Junior classes for 4- and 5-year-olds typically have 1 teacher for 28 students. Classes serving disadvantaged communities have fewer children per teacher. Members of the IPPA and Naíonraí playgroups are each expected to maintain a ratio of 1 adult for 8 to 10 children. Regulations that went into effect in 1996 as part of the Child Care Act state that the staff-child ratio for 3- to 6-year-olds should be 1:10. These regulations apply to all early childhood programs except the junior classes in primary schools, which fall under the jurisdiction of the Department of Education.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Junior classes in primary schools are typically held in one main classroom, with access to a hall and outside play area and toilets adjacent to the classroom. In general, private preschools and playgroups are held in a room of a private home or in local halls or empty classrooms, with toilets adjacent to the main room. State-aided day nurseries are generally located in a center facility with a number of rooms; sometimes these rooms are designated for specific groups (determined by age) or for specific activities.

Density/space per child

At the time of data collection, there were no regulations regarding space per child, and density varied from setting to setting. New regulations under the Child Care Act are explicit as to space requirements.

Rooms/space structured for children

All classrooms for young children are furnished with child-sized furniture. Junior classes in primary schools are held in rooms similar to classrooms for older children, with a number of tables for 6–8 children each, shelves around the perimeter of the room, and a teacher's desk. In some primary school preschool classrooms, specific areas for painting and dressing up are provided. Early childhood programs outside the primary school setting typically have fewer desks and chairs and more space for children to move around the room to different areas of interest. They also tend to have a greater variety of special interest areas and play materials than junior classes.

Materials/equipment

The Department of Education and most other organizations sponsoring preprimary services provide written recommendations for classroom materials and equipment. However, at the time of data collection there was no documentation regarding specific materials and equipment actually available in preprimary classrooms.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

At the time of data collection no specific information was available regarding the types of services available in preprimary settings. Generally, parents pay extra for such services whenever they are provided.

Outside resources

Available resources vary from setting to setting and may require parent fees. At the time of data collection no specific information had been documented regarding the availability of outside resources in preprimary settings.

Home-setting contact

For junior classes sponsored by the Department of Education, the National Parents' Council serves as the link between parent groups and primary schools. Many programs sponsored by the private or voluntary sector support parent involvement, but the type and degree of actual involvement vary from setting to setting.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

The majority of preprimary teachers are female; however, specific statistical information on teacher characteristics across all types of settings had not been documented at the time of data collection. Teachers working in settings sponsored by the private or voluntary sectors tend to work longer hours than teachers in settings sponsored by the Department of Education and are often perceived as caregivers rather than teachers.

Training

It is generally believed that adults working with young children should have training in the field, and there are a variety of training courses in early childhood care and education certified by national accrediting agencies and/or colleges and universities. However, except for early childhood programs sponsored by the Department of Education, there are no regulations regarding teacher training or practice. All teachers working in junior classes must have completed a 3-year university program in education. Private providers vary in their requirements; members of the IPPA agree to meet certain standards, such as attending (at a minimum) a 10-hour training course. The Naíonraí playgroups require a 10-day training course. Other providers (for example, Montessori Associations) have their own training programs, some up to 3 years in length. Teachers in the early childhood field are provided with a variety of inservice training programs throughout the year; all are optional.

Certification

Teachers working in junior classes in primary schools must have a university-awarded Bachelor of Education degree, which entitles them to teach children from 4 to 12 years of age in the primary school system. A small percentage of teaching staff in settings sponsored by the private or voluntary sectors have a 2-year certificate or 3-year diploma in early childhood education; however, at the time of data collection this was not a requirement.

ITALY

Italy—***Approximately 95 percent of 3- to 6-year-old children in Italy attend preprimary schools*** **(scuola materna).** ***More than half of these children attend state preprimary schools, sponsored by the national government; the remaining attend nonstate preprimary schools, sponsored by local governments, religious bodies, or private organisations. Preprimary schools serve preschool-aged children throughout Italy, though the attendance is somewhat lower in the south and in the Islands. The following sections provide information about both state and nonstate preprimary schools.***

MANAGEMENT POLICIES AND STAFFING

Sponsors

State preprimary schools are run by the national government through the Ministry of Education. They comprise 51% of preprimary settings and serve 53% of all children attending preprimary programs. Seventeen percent of preprimary settings are run by local governments (communal, provincial, and regional) and other public bodies, 20% are sponsored by religious organizations, and 13% are sponsored by private individuals or organizations. More than half of the preprimary schools in the north of Italy are nonstate schools, while in the central and southern regions and the Islands most settings are run by the state, with only a minority sponsored by religious bodies or other private organizations.

Licensing and supervision/inspection

State preschools, established in 1968 according to Law No. 444, are authorized and supervised by the Ministry of Education through the local (provincial) school authority. Nonstate preprimary schools, established by local authorities, are also recognized and supervised by the Ministry of Education through the local school authority. The Ministry of Education grants permission for these schools to operate, while the local state supervisor is responsible for enforcing regulations concerning their physical and pedagogical fitness. Inspections take place periodically; however, the supervisor may be consulted at any time if there is a need.

Admissions

Preprimary schools are open to 3- to 6-year-olds; children must be at least 3 years old by December 31st and no more than 6 years old at the time of enrollment. If space is available a child turning 3 by January 31st may be enrolled, but only after the 3rd birthday. Handicapped children 3 to 6 years old are admitted to regular preschool classrooms.

Records maintenance

Teachers regularly fill out an evaluation form, similar to a portfolio, for each child; developmental and achievement data in the different "experience fields" are recorded. The records are maintained by the classroom teacher and available for the head teacher's inspection and supervision.

Fees

State and nonstate regional, provincial, and communal preprimary schools are free of charge; in general, parents contribute only to the cost of transportation and meals provided by local authorities. Parents must pay fees for their children's attendance at nonstate religious and private nursery schools. Private and religious schools can receive state funds as a partial contribution to their operating costs, but to be eligible for such funds schools must offer free tuition to a certain number of economically needy children.

Staffing

In state-run schools, two teachers per classroom work up to 30 hours per week at the school. Directors are responsible for the management of several schools and do not teach. In nonstate schools run by local governments, a head teacher or principal acts as the administrator. Most schools also have ancillary staff for cooking and custodial duties.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

State and nonstate schools run by local governments remain open about 10 months per year; private preprimary schools may be open longer. Most preprimary schools open in mid-September and close by June 30. Settings may operate 5 or 6 days per week, according to the plan decided by each school.

Times of operation

Three quarters of Italian preprimary schools run two half-day sessions for a total of 6–8 hours a day, 14% operate for 8–10 hours per day, and 11% have only one 5–6-hour session. The percentage of preprimary schools operating full-time (7–10 hours per day) is increasing yearly, following the increase in state-run schools that have adopted this standard. Children who attend full-day schools have a lunch break at school. Nonstate schools tend to have more flexible hours, often beginning earlier in the day and staying open later in the afternoon. By regulation, the minimum number of hours of operation per day is 5 and the maximum is 10.

Enrollment

State preprimary schools serve 53% of all children attending preprimary institutions, local-government-run and other public schools serve 18%, preschools run by religious organizations serve 19%, and other private schools serve 10%. Preschools are typically composed of three classes corresponding to the ages of the children (3, 4, and 5 years), although mixed-age classes are permitted. In practice, children of different ages share classrooms and activities throughout the day. The maximum number of classes allowed per school is nine.

Group size and staffing ratio

For full-time preschools, Ministry of Education regulations specify 2 teachers for 14 to 28 children (3 to 6 years old). The average number of children per teacher in state preprimary schools is 11.2. However, the number of children per teacher is significantly lower in nonstate preschools run by local authorities (an average of 14.4 children per teacher in 1991–92) than in schools run by religious and other private organizations (an average of 19.7 children per teacher). For part-time preschools, the ratio is 28 children to 1 teacher. For classrooms with handicapped children, the maximum group size/staffing ratio is fifteen 3- to 6-year-olds with 2 teachers and 1 support teacher. The support teacher provides specialized psychological and teaching assistance to the handicapped children.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Preschool buildings differ a great deal from one another in number of rooms and space available; however, overall, state and nonstate facilities are similar. According to statistical data from 1991–92, the average number of rooms per school is 2.4, with an average area of 43 m^2 per room. Most schools also have additional indoor and outdoor areas available.

Density/space per child

According to statistical records, the average amount of space available per child is 1.8 m^2 in the main room used for educational activities. There is little variation in this figure among schools with various sponsors; however, there is significant variation in the amount of entire indoor space among schools in different areas of the country. In general, schools in the northern regions have more space per child than schools in central and southern Italy and in the Islands.

Rooms/space structured for children

Preprimary classrooms are usually structured according to the age of the children and the educational activities in which they are involved. Rooms are set up with materials stored in the corners and open space for activities in the center. Children can bring materials from all over the room into the center. They may work at tables or on the floor. In most preprimary schools, there are two or more rooms available for special activities, such as music, motor activities, reading, and so on. Almost all preprimary schools have some interior space designed as a play area (an open space for physical activity); a large proportion (72%) of schools also have an open outdoor area, which is used as a playground or garden. Such areas are usually large (an average of 707 m^2), but much larger in northern Italy (an average of 1000 m² per school) than in southern Italy (an average of 369 m² per school).

Materials/equipment

Local governments are responsible for supplying and maintaining school buildings operated by the state and for providing transportation and meal service. The national government is responsible for providing furnishings, teaching materials, and all other equipment. For nonstate schools, materials and equipment are obtained from a local or private sponsor.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Local governments have the responsibility for medical and psychological services and assistance for handicapped children. Specialized teachers provide routine assistance in classrooms enrolling one or more handicapped children. Meals and transportation are also provided to all students by the school itself. Most of the remaining services—dental care, speech therapy, etc.—are available by referral, with the local health agency supervising the school and providing services when required.

Outside resources

School-community relationships are an essential component of preprimary school life. Children regularly take advantage of the cultural, artistic, and educational opportunities available in the local community (e.g., theater, cinema, museums, music, and sports). They often visit different workplaces in small groups, and from time to time experts in various fields visit schools and entertain the children with performances, storytelling, puppet theaters, music, dancing, and sports.

Home-setting contact

In both state and nonstate preprimary schools, children's families generally participate actively in school life. Every 2 months parents receive a formal update on their children's progress, and most parents meet and talk informally with the teachers almost every day. Through their representatives on the school council and the classroom council, parents also participate in the management of the school. In addition, parents participate in various extracurricular activities.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

Almost all preprimary teachers in Italy are female. Teachers may begin teaching as young as 18 years of age, if they have the proper credentials, and teach until 65 years of age.

Training

Present regulations provide for the training of preschool teachers either in 3-year *scuole magistrali* or 4-year *instituti magistrali.* These are both secondary schools that accept middle-school graduates approximately 14 years of age. The *scuole magistrali* train preschool teachers, while the *instituti magistrali* are aimed at training primary school teachers. Teaching candidates in schools sponsored by the state or local governments must also pass a written competency test and an oral examination. The first year of actual teaching is considered a practice period, similar to an apprenticeship. According to pending legislation, nursery school teacher training will involve more schooling; after graduating from a 5-year program at the upper-secondary school level, candidates will attend a 4-year university course specifically designed for them and achieve the university degree *(laurea)*. In state schools, a school head must have a special postgraduate diploma in school administration and a record of regular employment teaching in the state system for at least 5 years, and he or she must also pass a public competition. To become an inspector for preprimary schools, a candidate must have a university degree and 9 years' experience as a teacher of a preprimary or primary school (including service as a school head, if applicable) and pass a public competition.

Certification

By law, the credential required for teachers in all preprimary schools, both state and nonstate, is a certification from a secondary school that trains preschool teachers; elementary school teachers may also be certified by examination to teach in preprimary schools.

NIGERIA

Nigeria (3 states)—***Fewer than 10% of Nigeria's 4-year-olds attend preprimary group settings. The majority of children are cared for at home by parents, relatives, or other caregivers. Recent efforts by organizations such as UNICEF have led to increased enrollment in preprimary settings in rural areas. All preprimary programs in Nigeria are sponsored by organisations, institutions, or individuals in the private sector. The following sections present information about group settings, also called nursery schools or kindergartens, that serve 4-year-olds in Nigeria.***

MANAGEMENT POLICIES AND STAFFING

Sponsors

Preprimary education and care in Nigeria is sponsored entirely by the private sector. Private sponsors include religious and private nonprofit organizations, universities, and other proprietary agencies and individuals.

Licensing and supervision/inspection

Nursery schools, or kindergartens, are regulated and controlled by federal and state ministries of education. The federal ministry makes the policies concerning these schools and the state ministry executes the policies. By law, the Local Inspectorate of Education (L.I.E.) oversees early childhood programs at the local level. In each of the 36 states and the federal capital territory, the L.I.E. is expected to supervise and inspect nursery schools and provide reports to the State Ministry of Education. In 1992, when Phase 2 data collection took place, the Local Health Board was responsible for inspecting health conditions at nursery schools. Since 1997, the newly created Ministry of Women's Affairs and Social Development has taken over the supervisory functions of the Ministry of Health. Due to a shortage of personnel, inspections do not take place on a regular basis, and it is estimated that more than 40% of the smaller settings are not regularly inspected. Guidelines for caregivers are set forth in the Federal Ministry of Education's *Guidelines for Preprimary Education* and the Nigerian Educational Research and Development Council's (NERDC) *Curriculum Guide for Preprimary Education.*

Admissions

Parents who are able to pay do not have difficulty finding a preprimary setting willing to accept their children. Age is the basic criterion for admission: 3- to 4-year-olds enroll in Nursery I, 4- to 5-year-olds in Nursery II, and 5- to 6-year-olds in Nursery III classes. Nursery II and Nursery III are considered to be kindergarten classes. In some schools there is no Nursery III class, and 5- to 6-year-old children begin the primary curriculum instead.

Records maintenance

Individual schools keep their own records, such as admission/enrollment, attendance, teachers' application/employment and qualifications, daily records of activities, a log book, and so on. Records are available for review as required by the L.I.E. or the State Ministry of Education.

Fees

Parent fees provide the majority of funding for preprimary settings. These fees are set according to the cost of facilities and services. There are generally no subsidies available to low-income families; however, in the 1990s, under the Better Life and Family Support Programs, states were encouraged to set up subsidized preprimary education facilities. In rural nursery schools run by UNICEF and other nonprofit organizations, poor parents may contribute only token fees. In some schools, when a family enrolls more than one child fees may be reduced at the discretion of the provider.

Staffing

Staffing patterns are determined by the specific sponsors of a nursery school. In settings sponsored by private individuals, the proprietor usually assumes the role of administrator and is responsible for hiring, keeping records, and determining fees and policies. No teaching qualifications are required to assume this role. The proprietor employs teachers and helpers according to the size of the facility. In settings sponsored by religious groups and other organizations, the board of the institution employs a head teacher/principal, and the board and the head teacher together make decisions regarding the operation of the setting. Large schools have a secretary and bursar. All staff work full-time when the program is in session; volunteers are generally not utilized.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Most nursery schools operate Monday through Friday in a three-school-term calendar year, in accordance with the State Ministry of Education. Each term spans 12 to 13 weeks, totaling 36–39 weeks per year. Schools are closed during public holidays.

Times of operation

Most nursery schools operate between 8:00 a.m. and 2:00 p.m. Some group settings located in urban areas and patronized by working mothers open earlier and close much later in order to accommodate parents' schedules.

Enrollment

Fewer than 10% of 4-year-olds in Nigeria attend group settings; the remaining children are cared for at home by parents, relatives, or others, such as maids or childminders. The size of preprimary group settings varies widely. Group settings, even those with limited space, may enroll 40 or 50 children. Nursery schools sponsored by religious and other organizations are often large, enrolling 100–200 children. Usually such settings also serve primary children.

Group size and staffing ratio

The NERDC's *Curriculum Guide for Preprimary Education* recommends that there be one teacher per 20 to 30 children for a nursery class of 4-year-old children. This recommendation is not always strictly followed.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

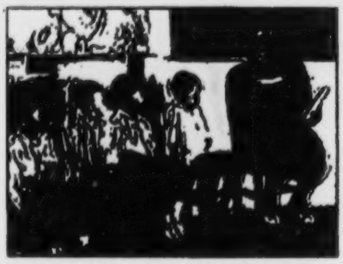
Almost any type of space may be used as a preprimary setting, including garages, stores, flats/apartments, and rudimentary buildings with bare floors and no windows. The Federal Ministry of Education does issue guidelines regarding physical space, but recommendations are often not followed and individual proprietors make use of what is available. In urban centers, it is common for nursery schools sponsored by religious or other organizations to be located in well-built preprimary facilities or primary school facilities; in rural areas, churches, mosques, and village halls are often used as preprimary facilities. A small proportion of nursery schools, usually those sponsored by educational institutions such as teacher-training colleges, have a school library with resources and references for teachers and reading materials for children. There may also be a teaching resource center with audiovisual materials, posters, charts, and other teaching aids and materials.

Density/space per child

Recommendations by the Federal Ministry of Education specify that classroom space should be suitable for 20 to 30 children.

Rooms/space structured for children

Nursery school classrooms are usually arranged in the traditional classroom manner, with the teacher in front and the children facing the teacher and chalkboard. Many group settings, especially those sponsored by private individuals, do not have large play areas. In some cases, a nursery school's outdoor play area may simply be an area adjacent to the nursery section of the primary school. Large nursery schools have play areas and large classrooms furnished with child-sized tables and chairs; there are other settings that have none. Electricity and running water are not available in some settings; child-sized toilet facilities are rare.



It is storytelling time in this Nigerian classroom.

Materials/equipment

Well-financed nursery schools have a variety of play materials, such as swings, slides, ladders, sand pits, paddling pools, toys, and so on; others lack adequate child-oriented materials for play. In small settings, materials are sparse and may include empty tins, spools, and a few balls and books. In some settings, the principal stores the materials and the teachers use them on a rotating basis. In general, compared to western settings Nigerian settings have sparse materials and equipment.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Some nursery schools provide snacks and transportation; extra fees are charged for these. Basic health care is provided, which may range from a well-stocked first-aid area in large schools to a sickbay or bed for emergencies in smaller settings. Parents are expected to provide medical care and special education services as needed for their own children. There are no setting-based referral services.

Outside resources

Some nursery schools employ resource teachers who provide special lessons in such subjects as the creative arts, piano, and computers. A few well-financed nursery schools (usually urban) provide French, computer, and ballet classes.

Home-setting contact

Most nursery schools hold formal "open days" one day each term, when parents meet with teachers to discuss their children's development. Parents also have the opportunity to speak informally with teachers when they pick up their children each day. Meetings of the Parent Teachers Association are generally held three times a year, at the end of each term. Large urban preschools may publish newsletters for parents.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

In nursery schools teachers and caregivers are female, since females are judged to be the more appropriate caregivers for this age level. Male teachers are more prevalent in primary school classrooms, although males may be proprietors of preprimary settings. Preprimary schools and centers employ women between the ages of 20 and 60 years.

Training

There are very few organized preservice training programs for nursery school staff, and many preprimary teachers have no special training in early childhood education. Nursery school teachers are expected to have a basic education through the secondary level, while their helpers or assistants typically have a primary school education. Sometimes teachers trained to teach in primary schools are employed to teach in nursery schools. A small number of preprimary schools provide occasional inservice programs and on-the-job training. Summer courses are also held, although most schools cannot afford to send staff for training.

Certification

There is no formal certification for preprimary teachers, and as a result qualifications vary among staff. A certificate may be earned upon completion of a 9-month Montessori training program. Some universities offer degree programs in early childhood education, but recipients of such degrees are more likely to become school administrators than teachers. The minimum educational certificate for entering a teacher-training college is the West African School Certificate or General Certificate of Education O' (ordinary) Levels. Older, more experienced teachers have the Teacher's Grade II Certificate, which has been phased out. Some preprimary teachers have the National Certificate of Education, which is the recommended minimum certificate required for teaching in Nigeria. Certifications are granted through 2- to 4-year university programs designed to train primary school personnel.

POLAND

Poland—*As of 1993, approximately 43% of 3- to 6-year-old children in Poland attended preprimary programs. The number of children attending such programs has decreased steadily since 1990, when self-governing local communities (communes) were given responsibility for running preprimary institutions. Reasons for the decline in enrollment include increasing tuition, a declining preschool-aged population, and the closure of many programs. Preschools serve children from 3 to 6 years of age; kindergartens, usually attached to primary schools, serve 6-year-olds (compulsory primary school begins at age 7). The large majority of preprimary programs are public, that is, they are established and funded by the commune. Enrollment in preprimary programs is greater in urban areas (52% of the preschool population) than in rural areas (33%). The following sections provide information about public and nonpublic preschools, the preprimary settings 4-year-olds in Poland are most likely to attend.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

Preprimary settings in Poland may have public or nonpublic sponsors; the majority are publicly sponsored. Public preschools are independent educational institutions (not connected to primary schools), established and administered by communes. Nonpublic preschools are generally run by organizations such as the Catholic Church, which operates preschools for economically disadvantaged children. A nonpublic preschool can be registered with the local school superintendent and may be run by any organization, institution, or private citizen.

Licensing and supervision/inspection

Public preschools are supervised by the local education superintendent, who is subordinate to the Ministry of National Education and works for the local branch of the central educational authorities. According to detailed regulation specified by the Educational System Act of 7 September 1991, general supervision takes place at least once every 5 years and includes appraising the institution's teaching, care, and education and encouraging teachers to make educational innovations. Other preschool functions (e.g., health supervision) are supervised by commune authorities at least once every 2 years. Although nonpublic preschools are also supervised by the education superintendent, the frequency of inspections and extent of supervision are not regulated in as much detail by the Educational System Act. Public and nonpublic preschools must follow minimum standards and the core curriculum approved by the Ministry of National Education. In both public and nonpublic settings, preschool directors are responsible for teachers' activities and the general functioning of the institution.

Admissions

Public preschools are for 3- to 6-year-old children, although many preschools admit younger children if they are able to care for themselves. Some public preschool directors report the following admissions criteria: children able to care for themselves, children from single-parent families, and teachers' children. These criteria are not specified by law but follow social tradition. In public preschools, priority is also given to 6-year-old children, who are entitled by law to a year of preparation prior to primary school, and children with special needs, who may stay in preschool up to 10 years if they are not ready for primary school. In nonpublic settings, admission policies are set by the individuals running the programs.

Records maintenance

The following types of records are required or are typically kept: attendance records, medical records, food program records, background information, program documentation, teachers' yearly and monthly activities documentation, and behavioral observation and psychological evaluation of children with behavioral problems.

Fees

Financing of public preschools is regulated by the Educational System Act. Communes maintain and finance public preschools and receive a general subsidy from the state budget as well as revenues from other sources. Parents pay for their children's meals and extra activities; an additional fee is charged if a child attends preschool more than 5 hours per day. Parent fees vary widely according to the revenues of each preschool. Economically disadvantaged families may apply for social welfare services to help cover preschool fees. Nonpublic preschools are financed largely by parents. However, if commune authorities deem these schools to be necessary, they can receive additional funds totaling 50% of current expenditures per pupil incurred in public schools of the same type. There are also special preschools, run and financed by the local education superintendent or commune, that serve only children with very serious dysfunctions.

Staffing

Public preschools employ teachers, child workers (without professional pedagogical qualification), directors (who are also teachers), cooks, accountants, janitors, and drivers. Some communes employ part-time nurses, dentists, and psychologists to serve several public preschools in a designated area. In nonpublic preschools there are no regulations concerning staff qualifications, and nonqualified persons may be employed.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

As specified in the Educational System Act, public and nonpublic preschools operate Monday through Friday, 10 months per year, from the 1st of September to the 31st of June. A small number of public preschools, mostly in rural and industrial areas, operate on Saturdays and Sundays and during summer vacation (July and August). Depending on parental needs, a number of preschools are open during holidays.

Times of operation

As specified in the Educational System Act, public preschools are free of charge for 5 hours per day but may operate up to 9 hours per day; parents then pay for the additional hours. The number of hours per day a particular preschool operates depends on parental needs.

Enrollment

In 1993, approximately 43% of 3- to 6-year-old children attended some type of preprimary program. Younger children (3 and 4 years old) make up a relatively small percentage of that group due to a decline in the preschool-aged population and an increase in the number of mothers of younger children remaining at home to care for them. A greater proportion of the preschool-aged population are enrolled in urban areas than in rural areas (52% versus 33%).

Group size and staffing ratio

The Educational System Act specifies a ratio of one teacher to 25 children in public preschools; in nonpublic preschools there are likely to be fewer children per teacher. Available documents reveal that in urban preschools one teacher generally cares for an average of 23 children, while in rural areas the average staff-child ratio is 1:21. Children in preschools are generally divided into groups by age, although there is a growing trend toward mixed-age groupings.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

A group of children with one teacher generally uses only one room for daily activities. Some preschools have additional rooms available for activities such as music and gross-motor experiences; however, these rooms are used only occasionally.

Density/space per child

According to health regulations an area of 2.4 m^2 per child should be provided in preschools, but in many cases this requirement is not met.

Rooms/space structured for children

In a typical public preschool there is a large group of tables in the center of the room. The corners are used for play activities, and there are designated areas for different kinds of play, such as construction, dramatic play, and art. Most toys and materials are easily accessible to children, although in some preschools certain expensive toys are available only by the teacher's permission. Some materials, kept on top shelves, are for display only and are not used by children. In nonpublic preschools, room arrangements vary according to the educational philosophy of the sponsoring institution and teachers' preferences. Almost all public preprimary programs also have an outdoor play area on site.

Materials/equipment

Public preschools classrooms for 4-year-old children typically contain stuffed animals and dolls, construction materials (e.g., blocks and puzzles), and materials for dramatic play. Preschools generally use commercially made toys and materials and make use of only a small amount of found materials, such as fabric scraps or recycled boxes.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Services available by referral in public preschools include psychological, medical, and dental services and speech therapy. Parents may pay extra fees for these services. Parent education classes are also organized and provided by public preschools.

Outside resources

Resources available in public preschools include art classes, foreign language classes, music and movement classes, and physical activity classes. These classes are available by referral; extra fees are paid by parents for the services. In nonpublic preschools outside resources vary according to the educational philosophy of the sponsoring organization.

Home-setting contact

The Educational System Act specifies that parents have a right to participate in their children's preschool education; however, parent participation is generally limited to fundraising activities, provision of supplies, and organization of various events, such as special holiday celebrations. Parents may participate in the preschool council, but they have no control over the choice of teacher, curriculum, or educational methods. Individual and group parent-teacher meetings are held, but notes, phone calls, and newsletters are uncommon.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

More than 99% of preprimary teachers in Poland are female. Preprimary teachers have the same rights, duties, and salaries as teachers in early primary education but tend to work longer hours. Preschool teachers are perceived as caregivers rather than teachers. Many teachers employed by preschools are specialists in other educational fields but choose to teach preschool while their own children are young. Some teachers who have specialized in preschool education may take positions in primary schools and other educational institutions.

Training

The education and training of preprimary teachers is in a state of change. Graduates of 2-year post-secondary colleges with specialization in preprimary education constitute the largest group among public preschool teachers (61%); however, this type of educational institution is being phased out and replaced by 3-year teacher-training colleges. A graduate of a 2- or 3-year college may take a teaching job or undertake advanced teacher training at an institution of higher education, such as a university, in order to obtain a master's degree. Some colleges and early education departments at universities train teachers to work both as preschool and primary school teachers. Approximately 19% of preschool teachers have master's degrees, but there is also a large group who have no specialized training in preschool education.

According to educational law, the education superintendent is responsible for providing inservice training for teachers. Inservice teacher training is organized by either the local education authority or the educational center of the communes. Participation in inservice training is voluntary. Teachers pay their own expenses but in some cases may be reimbursed by the commune.

Certification

Graduates of teaching colleges acquire the title of *licienciate*. Although certification is required by law, some teachers with many years of experience in the field are not certified; these teachers may attend inservice training in order to receive certification.

SLOVENIA

Slovenia—***At the time Provider Survey data were collected in Slovenia, in 1993, preprimary education was part of the public educational system and under the authority of the Ministry of Education and Sport. Slovenia has a broad network of public preprimary institutions, known as kindergartens, which are attended by children between 1 and 6 years old. Kindergarten attendance is not compulsory, except for 1 year of preprimary school before beginning primary school at age 7. This system was slated to change by the year 2000, when the age of entering compulsory school would be lowered to 6 and the compulsory preprimary year would be eliminated.***

MANAGEMENT POLICIES AND STAFFING

Sponsors

The majority of preprimary programs serving 3- to 6-year-olds are full-day child care/kindergartens sponsored by the central government. Local communities establish the settings and are responsible for ongoing management.

Licensing and supervision/inspection

The Department of Education is in charge of licensing all preprimary programs. The programs must meet certain standards in order to operate, and periodic health and hygiene inspections are carried out by the Ministry of Education and Sport. The Department of Education reviews preprimary settings and examines compliance with regulations pertaining to physical condition, including safety, environmental health, hygiene, and sanitation.

Admissions

Preprimary programs are available to children between 1 and 6 years of age. If there are not enough spaces available children are selected by a special commission, and priority is given to children of lower socioeconomic status (as determined by a certificate from the local Center for Social Work). Prior to entering a kindergarten setting, all children have to undergo a medical examination.

Records maintenance

Record keeping is not compulsory; however, programs generally keep medical records as well as psychological and social work records as necessary. Legislation enacted in February 1996 protects confidentiality and limits the extent of personal records kept.

Fees

Parent fees are established by the local community. Families are classified by per capita income (compared to the average income in Slovenia), size of family, and family assets, and fees are set accordingly.

Staffing

Staff members include a center director, preschool teachers (with a secondary or higher education), and caregivers. Many preprimary settings also have a head of studies, who coordinates curricular and extracurricular activities; a secretary-administrator; a bookkeeper; and staff who organize health, hygiene, and food services. Some centers employ a teacher for children with special needs.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Preprimary centers are open 5 days per week, and some provide day care on Saturday as needed. Kindergartens are open all year, even during school holidays, thus providing care and education for children who need it during these times.

Times of operation

Full-day kindergartens are open 9–11 hours per day, from 6:00 a.m. to 4:00 or 5:00 p.m. There are also much shorter programs, only 3–8 hours per week, in rural mountain areas.

Enrollment

More than 50% of eligible children attend kindergartens in Slovenia. Preprimary programs are open to all children from 1 to 6 years of age. Children are enrolled in groups on the basis of age; there are also mixed-age groups.

Group size and staffing ratio

Group size requirements vary according to age; for children 3 years and older the maximum group size is 30 children. New legislation taking effect in 2000 is intended to reduce group size in all age categories. At the time of data collection there was one preschool teacher and one caregiver for each class of children 3 years old and up; however, the new legislation specifies two preschool teachers per class, a head teacher and an assistant.

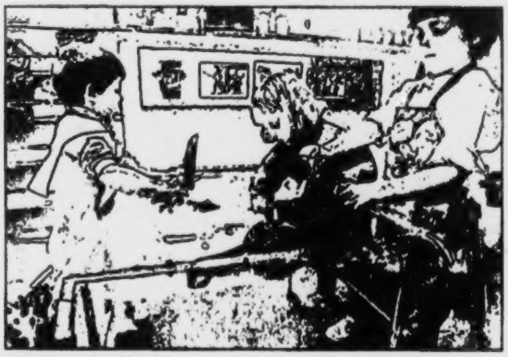
PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Most kindergartens in Slovenia are located in buildings designed especially for young children and have a variety of rooms, including classrooms, a gymnasium, a room for individual work, a room for toys, washrooms, wardrobes, and a room for teachers. Outdoor space includes a playground, playground toilet, a room for outdoor toys and didactic plays, and parking space. In addition, preprimary settings have a unit with a separate entrance for the kitchen, laundry, and utilities and an administration office.

Density/space per child

Regulations specify a minimum inside play space of 3 m² per child, a minimum of 40 m² per class (plus 10 m² for the wardrobe, 12 m² for the washrooms and toilets, 24 m² for the terrace), a common room or gymnasium (minimum of 56 m²), a room for individual work with children (minimum of 8 m²); a room for teachers (minimum of 25 m²), a room for toys and didactic plays (9–12 m²); the playground toilet (minimum of 5 m²), a room for outdoor toys and didactic plays (5–10 m²), and a playground (minimum of 15 m²).



Slovenian kindergartners enjoy playing at the water table during free time.

Rooms/space structured for children

Kindergartens must have safe and appropriate lighting and ventilation. All window frames, doors, and walls must be covered with paint or material that is nontoxic and easy to clean. Furniture should have rounded corners and edges and be proportioned to the size of the children. In addition to meeting these basic requirements, classrooms for children with special needs should have a rest corner and space for physiotherapy.

Materials/equipment

Equipment is made according to ergonomic standards and is child sized. Toys must be safe, nontoxic, and washable. Although there are no regulations regarding appropriate materials and equipment, the Department of Education does issue guidelines.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

On-site services are available for children with special needs; speech, psychological, and social services are available by referral. (Medical and dental care is provided by the central government.) For children who cannot attend kindergarten activities because of illness, preschool education at home can be contracted with the school.

Outside resources

A variety of resources are available, such as puppet theaters, music lessons, and gymnastics. Parents may pay extra for instruction in other enrichment activities, such as dance, foreign languages, and computers.

Home-setting contact

Kindergartens provide parents with a written publication of comprehensive information about the school and its policies. Parents are also invited to attend open-house days to talk with teachers, participate in activities with their children, and see examples of their children's work.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

Kindergarten teachers are generally female. Years of teaching experience range from less than 5 years to more than 30 years.

Training

Preprimary teachers receive 2 years of university training, including practice teaching under supervision and a 180-hour period of work in kindergartens. Special pedagogues receive 4 years of training at the university. Caregivers have completed secondary school and have special vocational training, including courses in first aid, health, and hygiene. New requirements now in effect require caregivers to have 2 years of specialized training.

Certification

Upon completion of university studies, teachers are awarded a degree and the title *vzgojiteljica predšolskih otrok* (preschool teacher). Continuing education is required; available courses last from one to several days.

SPAIN

Spain (Catalonia)—***In Catalonia, one of 17 autonomous communities in Spain with its own cultural traditions and language (Catalan), preprimary education is divided into two levels: nursery, which serves children from birth to 3 years of age, and kindergarten, serving children from 3 to 6 years old. All 4-year-old children in Catalonia attend kindergarten; 54% are enrolled in public programs and 46% are enrolled in private programs. The following sections present information about public and private kindergartens in Catalonia, the settings where IEA/PPP Phase 2 data were collected.***

MANAGEMENT POLICIES AND STAFFING

Sponsors

Almost all public preprimary schools are funded by the Catalan government, although a small number are run by municipal governments and by the military for their families. Private kindergartens can be sponsored by cultural associations, businesses, or parent-teacher cooperatives; however, the majority are sponsored by religious organizations. Some private primary schools receive funding through special contracts from the Catalan government, and preprimary programs within these schools may also benefit from these government funds.

Licensing and supervision/inspection

The Catalan Department of Education, part of the Generalitat administration dealing with educational policy, licenses all schools, both public and private. Legislation referred to as LOGSE[1] provides the legislative framework governing public and private preprimary schools. The legislation sets minimum requirements for preprimary education providers, with particular focus on the staff, building, physical conditions, number of classes, staff-child ratio, number of openings available, location, and community need. Periodically, the Department of Education reviews schools for compliance with regulations pertaining to physical conditions, including safety, environmental health, hygiene, and sanitation. Inspectors also cooperate in planning, coordinating and managing resources, and organizing inservice education.

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[1] *Llei Orgànica 1/1990, de 3 d'octubre, de'Ordenació General del Sistema Educatiu* (Organic Law 1/1990, of October 3, for the General Planning of the Educational System)

Admissions

For public and government-funded private schools, legislation requires that local Department of Education branches provide notification of openings for children at each school. If the number of applications exceeds available openings, the school council determines admission according to family income, employment status of parents/guardians, size of family, proximity to home or workplace, enrollment of siblings, physical or mental handicaps of the children or the parents/guardians, and other circumstances related to social disadvantage. There is no discrimination in admissions for ideological, religious, moral, social, racial, or ethnic reasons. In private schools with no government funding, each school establishes its own criteria for admission (e.g., an admissions test, siblings or other relatives at the school).

Records maintenance

All preprimary schools are required to keep records of basic information on each child, including data from observations and developmental assessments over the course of the year, reports to parents/ guardians, and educational approaches used in the classroom.

Fees

Public preprimary programs are financed by the Catalan Department of Education or local organizations (e.g., municipal governments); private schools are financed mainly by parents, but those schools having agreements with the Catalan government may also receive subsidies for teacher salaries. Scholarships and other financial aid are available to preprimary students each year; aid may be used for tuition, transportation, teaching materials, and so on. The amount of aid and scholarships varies according to the child's circumstances (e.g., family income, number of dependent household members).

Staffing

The headmaster is an experienced teacher, elected by the school council and appointed by the Department of Education. With the approval of the Department of Education, the headmaster appoints two teachers to administrative duties: a head of studies, who coordinates academic and extracurricular activities with the school council, parents' association, and professional guidance counselors; and a secretary-administrator, who administers school operations and manages student records and bookkeeping. In addition to teaching, the teaching staff plan lessons, elect representatives to the school council, coordinate the tasks of guidance counselors and tutors, and promote educational innovation and research. The school staff also includes teaching specialists in special education, Catalan, music, and physical education, as well as a secretarial and custodial staff.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Public and private preprimary schools are open 5 days per week, Monday through Friday. Schools may be used on weekends for activities such as sports events. The school year (40 teaching weeks) begins around September 15 and ends before June 24, the Catalan holiday of Saint Joan (Saint John).

Times of operation

Children in both public and private preprimary settings attend school for a total of 5 hours per day: 3 or 3½ hours in the morning, between 8:30 a.m. and 1:00 p.m., and 1½ or 2 hours in the afternoon, between 3:00 and 6:00 p.m. This schedule includes recess time, which is considered an integral part of the teaching/learning process.

Enrollment

Although preprimary education (aged 0 to 6 years) is not compulsory, all 3- and 4-year-old children in Catalonia are enrolled in some type of program. Schooling for young children is divided into two levels: nursery school or prekindergarten *(llar d'infants)*, for children aged 0 to 3 years, and kindergarten *(parvulari)*, for children aged 3 to 6 years.

These children in a Catalonian private kindergarten enjoy jumping in and out of tires at recess time.

Group size and staffing ratio

The legal maximum number is twenty-five 3- to 6-year-old children per group. At the kindergarten level, schools are required to have one qualified teacher per class and at least three separate classes, one for each age group: 3 to 4 years, 4 to 5 years, and 5 to 6 years.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

The minimum size requirement for a kindergarten classroom is 30 m², but most are larger. Kindergartens have a multipurpose room, a teachers' room, an optional remedial work room, and a lunchroom. Outdoor spaces include a covered space, which may be a garden or greenhouse, and a playground, which must be at least 150 m². Schools also have an administration office and a secretary's office.

Density/space per child

Legislation specifies that in classrooms for 3- to 5-year-olds there must be at least 2 m² of space per child.

Rooms/space structured for children

Schools must have safe and appropriate lighting, ventilation, windows, doors, and walls covered with paint or other material that is nonporous, nontoxic, and easy to clean. Furniture must be nonporous, with rounded corners and edges and proportioned to the size of the children. Preprimary schools must provide at least one playground that is not open to the public.

Materials/equipment

Toys must be safe, shatterproof, nontoxic, and washable. There are no other regulations about materials and equipment; however, the Department of Education has set certain guidelines and supplies public schools with equipment such as furniture, office machines, teaching materials, audiovisual materials, kitchen and lunchroom equipment, sports equipment, computer equipment, and laboratory equipment. Books, puzzles, puppets, balls, pets, plants, dolls, art supplies, and materials for dramatic play are found in most schools.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

To promote quality in education, the Department of Education provides teaching resource centers with library and information services, teaching materials and portable equipment, information on local and county resources, audiovisual and computer resources, and curriculum plans and materials. Counseling and psycho-pedagogical guidance teams (e.g., psychologists, education specialists, and social workers) are available for early detection of problems in children's psychological and social development. Teams design and maintain individualized programs for pupils in cooperation with teachers and school guidance counselors. The services described are available in both public and private schools.

Outside resources

In schools where there is a need, compensatory education programs target socially or economically disadvantaged children to help facilitate their assimilation into the school. These programs are meant to ensure a multicultural education within the framework of Catalan culture and provide extra resources for teachers. The Computers in Education Program provides computer tools and services to schools as well as teacher training in technology. The Department of Education also establishes agreements with universities or local administrations for vaccination programs and social work and other services.

Home-setting contact

Before children enter kindergarten, teachers meet with parents to get background information. Through periodic meetings and written reports, which emphasize qualitative assessment, parents and teachers analyze children's development and exchange opinions and information. Daily communication with parents is also encouraged. Parents also participate in school councils, which are required to meet at least once a term, by means of elected representatives. School councils channel information and foster cooperation among the Catalan kindergartens, the school administration, and the community.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

The minimum age for teaching in preprimary schools is 21 years. There is a range of age and experience among teachers in public and private preprimary schools, but statistics are not available.

Training

Legislation requires that kindergarten be taught by qualified teachers who have a 3-year university degree *(diplomatura)* in early childhood education or preprimary education (as it was called before the educational reform). Teachers also must have access to inservice training. The Department of Education provides training activities, coordinated by the Educational Resource Centers, related to curriculum development, the improvement of teaching skills, and new knowledge in the field. Participation in these training activities, which run from October to May, is voluntary and usually takes place outside of class time. Teacher associations, teacher unions, university schools, departments of education, and foundations also offer a wide range of teacher-training activities.

Certification

The requirement for teaching at the kindergarten level is a degree in either early childhood education or primary school education with a specialization in preprimary education. Placement in a public school position is determined by a competitive civil service exam administered by the Department of Education. Successful exam candidates become government employees who may teach in public schools and are granted tenure. In private schools, teachers are hired on the basis of personal qualifications and need not take an exam.

THAILAND

Thailand—As of 1994, 65% of 3- to 5-year-old children attended some type of preprimary program sponsored by government or private agencies. In most areas of the country, 6-year-olds attend primary school. Preprimary programs can be classified as either education programs, including kindergartens and preprimary classes, or child care centers. Although preprimary education is not compulsory at this time, the government recognizes its importance and is committed to expanding preprimary services throughout the country, especially in rural and remote areas and disadvantaged urban communities. The following sections provide information on both educational programs and child care centers, the types of settings where Phase 2 IEA/PPP data collection took place.

MANAGEMENT POLICIES AND STAFFING

Sponsors

The government is the major sponsor of preprimary education through various branches, including the Ministries of Education, Interior, Public Welfare, Public Health, and University Affairs. Depending on specific community needs, the government may sponsor kindergartens, preprimary classes, or child care centers. In addition, a number of kindergartens and child care centers are operated by private agencies (approximately 21% of all services, serving about 15% of all 3- to 5-year-olds).

Licensing and supervision/inspection

Government kindergartens and preprimary classes are supervised by the Office of National Primary Education Commission (ONPEC). Private kindergartens are licensed and inspected by the Office of Private Education Commission (OPEC). Various departments and ministries, such as the Department of Public Welfare and the Department of Community Development, license and supervise the private child care centers under their jurisdiction. Child nutrition centers, which are child care centers with an emphasis on health and nutrition, are under the jurisdiction of the Department of Health.

Admissions

The primary admission criteria for early childhood programs is age. Government kindergartens serve 4- to 6-year-olds; private kindergartens serve 3- to 6-year-olds. Government preprimary classes are 1-year classes offered to 5- to 6-year-olds. Child care centers are generally available to children from birth to age 6, according to the policies of the sponsoring organization.

Records maintenance

Each type of center has its own record-keeping system. For example, kindergartens keep records charting a child's physical, emotional, social, and intellectual development, while child nutrition centers may place more emphasis on records about health and physical development.

Fees

Because preprimary education is not compulsory, parents of children in both government and private programs pay fees. Although there is no sliding scale, some low-income parents may be exempt from paying fees. Parents pay low fees in government kindergartens; in private kindergartens, fees are higher. The Office of Private Education sets up fees according to the quality of the school. In child care centers, fees vary depending on the sponsoring agency; developmental centers and child nutrition centers, for example, charge very low fees.

Staffing

Government kindergartens operate within primary schools. Most teachers in these programs are government employees, hired permanently by and receiving their salaries from the government; a small proportion are hired on only a temporary basis. Some government and private kindergartens hire helpers to help teachers look after the children. Many kindergartens also employ cooks and janitors. In child care centers, caregivers are usually responsible for doing all of the work required in the setting. In government child care centers, caregivers' salaries are supported by the government and through parent fees. Salary levels of teachers in government and private kindergartens and of caregivers in private child care centers are based on their qualifications.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

Preprimary programs associated with government or private schools are open Monday through Friday, 200 days per year, with a summer break. In contrast, child care centers are open Monday through Friday year-round.

Times of operation

Government kindergartens are open 6½ hours per day, from 8:30 a.m. to 3:00 p.m. Times of operation are about the same in other types of programs, with the exception of private schools and child care centers, where hours are more flexible based on the needs of parents.

Enrollment

Approximately 65% of 3- to 5-year-old children are served by some type of preprimary educational program or child care center. Of this group, 65% attend kindergartens, 15% attend preprimary classes in primary schools, and 20% attend child care centers.

Group size and staffing ratio

In government kindergartens, there is one teacher for 35–40 children. There may be one aide for two classrooms. In private kindergartens, there is one teacher for 25 children. Child care centers generally have one caregiver for about 25–30 children.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Kindergarten classrooms are 48 m^2 (in older buildings) or 63 m^2 (in newer buildings). Most programs in child care centers have access to one or two rooms; one room is used as a classroom, and the other is a multipurpose room used for sleeping or eating. In educational settings like kindergartens, most activities take place in the classroom; only the larger settings have additional, multipurpose rooms.

Density/space per child

There are no regulations regarding density; however, the amount of space per child in government and private kindergartens depends on class size and ranges from 1 to 3 m^2. Child care centers often use whatever buildings or rooms in the community are available to them. These rooms are generally multipurpose and may have more space per child than is commonly provided in kindergartens.

Rooms/space structured for children

The Office of National Primary Education recommends that kindergarten classes have storage space for each child's belongings (usually open shelves), a chair for each child, and five or six group tables. The corners in each classroom are set up for play activities, such as blocks, art, reading, nature study, and so on. Each corner typically has a shelf on which to store materials and a mat for children's activities. Each school or center must also have an outdoor play area for children.

Materials/equipment

Most preprimary programs have materials such as big crayons, paper, watercolors, and so on. Play corners in classrooms are equipped with blocks, books, and materials for studying nature and playing house. Outdoor play equipment includes balls, balance beams, slides, swings, climbing equipment, tricycles, and space for sand and water play.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Health care is provided by referral to local health centers; vaccination is available on site. Local health officers come to schools and centers to vaccinate children. Children with special needs are referred to centers or hospitals that have special services for them. Very few preprimary schools in Thailand have special education teachers.

Outside resources

Each preprimary program plans its own activities. Local people may be invited to talk to children about their community. Occasional field trips are taken to a nearby Buddhist temple or zoo. Cultural activities, such as religious ceremonies and local festivals, are integrated into lessons all year long.

Home-setting contact

Parents participate in informal conversations and meetings with program staff and attend special school activities, such as annual school fairs. Parents may also receive school newsletters.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

Although statistics are not available, it is estimated that teachers range in age from 20 to 60 years, with the majority between 30 and 40 years of age. Most preschool teachers are female. Preprimary services have greatly expanded in recent years, so a number of primary teachers have been moved to preprimary classes. For this reason, years of teaching experience may vary widely; however, there are no statistics available.

Training

Preservice training is provided by teacher-training colleges and universities. Two-year teacher-training programs have been phased out, and those who want to study early childhood education must attend a 4-year program granting a bachelor's degree. Statistics on the qualifications of preprimary teachers are not available. However, it is known that about 78% of all teachers (preprimary and primary) working under the Office of National Primary Education have a college or university degree. In child care centers, the majority of caregivers have a twelfth-grade education and no teaching qualifications. Various government and private organizations provide inservice training for teachers and caregivers. However, in 1984 it was estimated that 30% had no access to inservice training. Many agencies also offer short courses and training in specific skills and techniques.

Certification

Kindergarten teachers should have at least a Higher Certificate in Early Childhood Education. In the past, teachers who completed 2 years at a teacher-training college could receive the Higher Certificate in Early Childhood Education. However, this type of program has recently been eliminated. At present, teachers who receive teaching degrees or teaching certificates from universities or colleges are automatically certified.

UNITED STATES

United States (6 sites)—*Preprimary care and education in the United States is characterized by diversity and decentralization. Recent surveys show that approximately 60% of children under age 6 who have not yet entered the public school system receive some type of care on a regular basis. The percentage receiving such care increases with age, from about 50% of children under age 3 to over 70% of children between 3 and 6 years old. Preprimary settings are center based or home based (family day care). Emphasis in programs varies from providing basic care to focusing on preschool educational objectives and child development. Although federal and state governments provide funds for educational programs targeting economically disadvantaged and at-risk children, most programs are privately sponsored and paid for by parent fees. At the beginning of 1990 there were approximately 80,000 center-based early education and child care programs and 118,000 regulated family day care providers. Center-based care is relatively more scarce in rural areas than metropolitan areas, while home-based care is more equally available. Each state is responsible for licensing and supervising preprimary settings within its own boundaries. As a result, regulations concerning such requirements as staff-child ratios, group size, and teacher education and certification vary across states.*

MANAGEMENT POLICIES AND STAFFING

Sponsors

Most center-based programs (83%) and almost all family day care homes are privately sponsored. Forty-eight percent of child care centers and preschools are operated under private nonprofit auspices, such as churches and charitable organizations; 35% are privately owned and operated for profit, either independently or as part of national chains. The remaining center-based programs are government sponsored, including the federally funded Head Start programs (9% of all programs), for economically disadvantaged 3- to 5-year-olds, and state-operated public preschools (8%), for children at risk of school failure.

Licensing and supervision/inspection

Responsibility rests with each state government to regulate and license center-based programs and family day care homes operating within its own boundaries. Government licensing gives permission to operate and is intended to provide minimum basic standards of care. Regulations vary from state to state but generally cover health and safety, staff-child ratios, and staff qualifications and training. In many states, family day care homes are exempt from regulation, depending on the number of children cared for in the home. All federally funded Head Start programs are required to meet Program Performance Standards, which are generally programmatic and usually supersede state licensing requirements. These federal Head Start standards are enforced by regional offices through annual reviews by questionnaire and on-site visits every 3 years. Any child care program may also voluntarily seek accreditation through the National Academy of Early Childhood Programs, a division of NAEYC, a professional organization for early childhood educators. Accreditation requirements emphasize high-quality interactions between children and staff and developmentally appropriate curricula. The evaluation process includes an extensive self-study performed by the child care center and a validating site visit by volunteers representing the academy; accreditation is granted for a 3-year period. The voluntary accreditation process was initiated by NAEYC in 1980; as of 1996, more than 4,700 programs had achieved accreditation and an additional 9,700 were in process.

Admissions

Admission criteria vary according to type of sponsorship and purpose of the program. The federal Head Start program is offered primarily to economically disadvantaged children between 3 and 5 years of age, although a small percentage of younger children are served by the new, related Early Head Start program. State prekindergarten services (public preschools) vary widely in purpose, but most target 4-year-olds considered to be at risk of school failure. States also offer early intervention programs for young children with disabilities. Private center-based programs and family day care homes tend to have unrestrictive admissions policies and offer their services to parents on a first-come, first-served basis. Family day care homes enroll relatively more children under 3 years old, while center-based programs serve greater numbers of 3- to 4-year-old children.

Records maintenance

Most state licensing requirements specify some record keeping, and almost all center-based programs keep at least minimal records, such as business records, attendance, staff background and certification, and basic health and contact information for children. Family day care providers record basic information regarding children's backgrounds and parent contact information. Head Start Performance Standards and NAEYC accreditation criteria require more extensive record keeping, including detailed medical and developmental histories and descriptions of children's current development and learning.

Fees

The amount of fees parents pay varies by program type. There is no charge for Head Start programs and most public preschools. Almost all other programs charge fees, which account for 90% to 95% of their income. In addition to fees, a variety of public subsidies provide funds for child care. Approximately 40% of all preprimary center-based programs receive subsidies from public agencies, usually to serve low-income children. Low-income families may also receive subsidies directly through vouchers that can be used to pay for child care. Another method of offsetting child care costs is through federal income-tax credits.

Staffing

The staff in most preprimary center-based programs includes a director (who may also be a teacher), teachers, assistant teachers or aides, volunteers, and additional help for kitchen and custodial responsibilities as needed. The number of staff varies according to the size of the center; however, a recent national survey found that, on average, center-based programs employ five teachers, two or three assistant teachers or aides, and three regular volunteers. Directors are responsible for administrative work, such as fiscal planning and accounting, compliance with licensing requirements, and supervision of staff; they may also be involved in curriculum planning and teaching. Teachers are responsible for caring for a group of children with assistance from assistant teachers, aides, or volunteers. In family day care homes, the staff consists of the provider and, in many cases, a helper or assistant.

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

Weeks and days open per week, per year

The majority of preprimary center-based settings and family day care homes offer child care at least 50 weeks per year. More centers (24%) than family day care homes (2%) operate less than 10 months per year. Few programs of either type offer care on weekends.

Times of operation

Almost all family day care providers (94%) offer full-time care (40 or more hours per week), while only about two thirds of center-based programs operate full time. Centers provide care for 46 hours per week, on average, in contrast to 55 hours per week for family day care providers. Most Head Start and public preschool programs do not operate on a full-time, year-round basis.

Enrollment

Approximately 60% of children under age 6 receive some type of nonparental care, either in centers, family day care homes, or their own homes. The proportion of children receiving such care increases with the age of the child, family income, and maternal education. Seventy-eight percent of 4-year-olds receive some type of nonparental care; 65% are enrolled in center-based care and 33% receive home-based care (percentages include some children who participate in more than one type of care arrangement).

The average number of children enrolled in a setting varies from 62, in a typical center-based program, to 6, in a family day care home. Center size varies widely; for instance, the average Head Start program serves 50 children, and the average number of children in for-profit settings is 91. Family day care homes serve proportionately more infants and toddlers and fewer children aged 3 and older than do center-based programs. Proportionately more children enrolled in family day care homes receive full-time care than those enrolled in centers, due to the fact that many center-based programs, such as Head Start, operate on a part-time basis only.

Group size and staffing ratio

Each state establishes its own requirements for group size and staff-child ratios, and data show that most preprimary programs do meet these requirements. Almost half of states set no maximum group size; among those that do, it ranges from 20 to 35 children. The NAEYC professional organization recommends a group size of no more than 16–20 children for 4- and 5-year-olds.

The number of children per staff member ranges across states from a high of 20 to a low of 8. NAEYC recommendations specify a maximum of 8–10 preschool children for one staff person. The maximum allowable group size in family day care homes with one caregiver, averaged across states, is 7 children; the average actual group size is 6 children. The average number of children per adult in homes with at least one 4-year-old is 6.7, which is within the NAEYC staff-child recommendations (1:8) for 3- and 4-year-old children.

PHYSICAL CHARACTERISTICS OF SETTINGS

Rooms/space available and used

Space available in group settings varies a great deal according to the size and type of setting; however, all have at least one classroom, an additional room (usually smaller than the classroom) used as office space, and bathroom facilities. Many programs use space in churches, schools, or other buildings, while others are located in structures specifically designed and built to be preschools. Often public preschools are incorporated into primary schools and have one or more classrooms within the primary school, as well as access to the gym, outdoor playground, and cafeteria facilities associated with the primary school. Other types of group settings, including Head Start programs, may be located in a large building with several classrooms, an outdoor play area, a kitchen, and a lunchroom.

Density/space per child

Regulations for each state specify the amount of space per child both indoors and on playgrounds. Although such regulations do differ slightly from state to state, most meet or exceed the Head Start Performance Standards and NAEYC recommendations of 35 square feet (3.25 m^2) per child indoors and 75 square feet (6.96 m^2) per child in outdoor play areas.

Children in this U.S. setting enjoy climbing during outdoor play.

Rooms/space structured for children

State regulations, which establish minimum basic standards, generally specify that preprimary classrooms should be clean, safe, and have child-sized furniture and equipment. Most classrooms have child-sized chairs and tables for small-group activities, a floor area for large-group activities and rest periods, and shelves and bins with play materials along the walls or placed around the room. Groups settings also have outdoor play areas, either adjacent to classrooms or close by. NAEYC accreditation criteria recommend that there be space for each child's personal belongings, areas for both individual and group activities, and a fenced outdoor play area with hard and soft surfaces. NAEYC also recommends that play materials be organized on low shelves and rotated frequently to allow children access to materials and to encourage a variety of types of play.

Materials/equipment

State regulations vary in the amount of detail regarding materials and equipment in preprimary classrooms. Some states require little more than a clean, safe space with developmentally appropriate play materials, while others supply detailed recommendations concerning the types of toys and play equipment to be made available. Most centers have a wide variety of play materials, including art and music supplies, books, blocks and other construction materials, costumes and puppets, dolls and housekeeping toys, toy cars and trucks, and materials for science and nature study. In outdoor play areas, children usually have access to a variety of riding and climbing toys. More affluent centers may have newer equipment and a greater number of toys available, while poorer centers are likely to have fewer, older toys. Head Start Performance Standards specify that there must be materials available that are relevant to children's cultural backgrounds (e.g., African-American, Asian-American, Hispanic, etc.), such as books, posters, and dolls.

SUPPORT SERVICES AND HOME-SETTING CONTACT

Types of services available on site/by referral

Almost all group settings and family day care homes serve meals or snacks to the children in their care. In addition, national survey data show that over one half of group settings offer vision, speech, and hearing screening. However, only programs serving low-income children, such as Head Start, public preschools, and other nonprofit programs, are likely to provide additional supplemental services. Head Start programs are mandated to provide comprehensive supplemental services, including physical and dental exams, psychological and developmental testing, social services, referrals for treatment, and follow-up. Most public preschool programs provide psychological and developmental testing, although survey data indicate that only about 30% offer medical and dental exams. Developmental testing is likely to be offered by about one third of other group settings, and a small percentage offer psychological, medical, and dental exams. Family day care homes typically do not provide supplemental services.

Outside resources

The use of outside resources varies according to program philosophy and access to resources. Most group settings welcome programs or activities presented by community members. Presentations might be designed to familiarize children with aspects of different cultures and professions or they might center around a special art or music project. Field trips are more difficult to arrange and are apt to be less frequent; visits to local parks or children's theater presentations are typical. Public preschools, because of their association with primary schools and greater access to resources, are likely to make the most use of community resources.

Home-setting contact

Each type of program establishes its own routine for parent contact, which may range from informal conversations during drop-off and pickup times to formal participation on governing boards and advisory committees. Most programs also have some means of ongoing communication through newsletters, bulletin boards, conferences, and/or daily conversations. Communication in family day care homes usually takes the form of informal conversations during drop-off and pickup times. Both

Head Start Performance Standards and NAEYC accreditation criteria emphasize parent involvement in children's care and education. In Head Start programs, teachers make at least two home visits per year to meet with parents; ongoing communication is fostered through newsletters and informal meetings at school. Parents are also encouraged to participate in classroom activities and educational programs. Head Start requirements specify parent involvement in policy group meetings, which offer an opportunity to participate in program planning and decision making. NAEYC recommends pre-enrollment meetings with parents to familiarize them with the program and facilities; day-to-day communication through newsletters, bulletin boards, and informal conversations is also encouraged. Parents are encouraged to make frequent visits to the program, and at least one parent-teacher conference per year is recommended.

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS

General characteristics

It is estimated that approximately 97% of the teaching staff in preprimary settings are female. Most teachers are between the ages of 19 and 40 years, although a large percentage (34%) are in their early 20s. The NCCS study found that 29% of teachers and over 50% of assistants had been working in child care 3 years or less; 19% had been in the field 10 years or more. Directors and teachers generally have more years of experience than assistants or aides.

Training

Each state sets its own requirements for preservice and inservice training for teachers. Almost all states require some type of annual inservice training for child care workers; less than one third require preservice training. Preservice training consisting of college-level early childhood courses is required for center-based teachers in only about one fifth of the states, and only 5 states require preservice training for family day care providers. However, surveys have found that in center-based settings almost one half of the teachers have graduated from college, and nearly all have received child-related training. Teachers in public preschool programs are the most likely to have a college degree (88%), followed by Head Start teachers (45%). In contrast, only 11% of the family day care providers surveyed have graduated from college, although about two thirds have received some type of training in child care or early education.

Certification

Early childhood certification is available on a number of different levels. The most basic level is the Child Development Associate credential (CDA), a national credential issued by the Council for Early Childhood Professional Recognition. The CDA can be earned either through an assessment process or after successful completion of a 1-year program of study, including field work and course work. Although surveys have found that 29% of Head Start teachers have obtained CDA certification, only a small proportion of teachers in other types of settings have done so. Individuals may also pursue a 2-year course of study leading to an associate's degree or a 4-year program leading to a bachelor's degree in early childhood education/child development. Individuals obtaining a master's degree or doctorate often teach in colleges or universities and do research in the field, although they may serve as master teachers, center directors, or specialists. The NAEYC recommends that staff in charge of a group of children have at least a CDA or associate's degree in early childhood education/

child development. The organization further recommends that each program have an early childhood specialist to direct the educational program and that this person have a bachelor's or graduate degree in early childhood education/child development.

HOW THE STUDY WAS CONDUCTED

IV

METHODOLOGY OF THE PHASE 2 STUDY

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As described in Chapter 1, Phase 2 of the IEA Preprimary Project (IEA/PPP) is a study of the quality of life experienced by 4-year-old children in major early childhood settings. It also explores the impact of programmatic and familial factors on children's developmental status at age 4. This chapter presents detailed information about the instruments, the national samples, and the data collection procedures of Phase 2. It begins with general information about Phase 2 methodology and then describes the sampling and data collection in each country.

GENERAL INFORMATION ABOUT PHASE 2 SAMPLING

THE INTERNATIONAL SAMPLING REFEREE

Leslie Kish served as the international sampling referee for all phases of the IEA Preprimary Project. Dr. Kish was a professor emeritus at the University of Michigan, where he was a founder of the Institute for Social Research. He authored *Survey Sampling* (1965) and *Statistical Design for Research* (1987). In the past he served as president of the American Statistical Association (1977) and of the International Association of Survey Statisticians (1983–85). In his role as sampling referee for the IEA/PPP, Dr. Kish worked closely with the project's International Coordinating Center (ICC) in supervising the preparation of the project's sampling documents, monitoring the development of national sampling plans, and granting formal approval of each national plan.

THE TARGET POPULATION

The target population for Phase 2 of the IEA/PPP consisted of children in selected early childhood settings who were between ages 4 years 3 months and 4 years 9 months at the time of the child developmental status posttesting. (For reasons detailed in the descriptions of the national samples, some countries expanded their age-range to include children between ages 4 years 0 months and 5 years 0 months at the time of the child developmental status posttesting.)

GENERAL SAMPLING PROCEDURES

The IEA/PPP steering committee, the study's international sampling referee (Dr. Leslie Kish), and the ICC staff jointly developed the general sampling guidelines for Phase 2 of the study. As explained in Chapter 1, their guidelines addressed three major points: (1) whenever possible, for any specific type of setting, the number of settings selected should reflect the frequency with which 4-year-olds use that type of setting; (2) to achieve sufficient sample sizes for national-level multivariate analysis at the end of Phase 3 of the IEA/PPP (assuming 20% attrition), a minimum sample of 96 children should be selected from each type of setting; and (3) a maximum of 4 children should be randomly selected from each group setting, resulting in at least 24 settings representing each type of early childhood program included in the study.

SELECTION OF SETTINGS AND CHILDREN

For Phase 2 of the IEA/PPP, each participating country had the task of selecting two or more types of early childhood settings that were (1) used by large numbers of families or (2) important for public policy reasons. In most participating countries, the researchers based their selection of settings on data from Phase 1 of the project. (Phase 1, a household survey of a representative sample of families, collected data about parents' use of various types of early childhood care and education settings.) Countries that did not participate in Phase 1 used other methods to determine the major types of early childhood settings available and the percentage of preschool-aged children attending each type of setting. Usually this involved obtaining information from the Ministry of Education or other national or regional sources.

Whenever possible, for each type of setting that a country included in Phase 2, researchers obtained an up-to-date national list of all such settings. Then, they worked closely with Dr. Kish and the ICC staff to develop a system for selecting from that list a nationally representative sample of settings of this type.

For countries without up-to-date national lists of early childhood settings, area sampling procedures were followed. For example, Romania's research coordinator prepared a list of the country's 38 districts, including a variety of information about each district. Dr. Kish and the ICC then prepared an ordered list of the 38 districts and used systematic sampling procedures to select 8 districts. For each of those 8 districts, Romania's coordinator obtained a list of all towns and areas, with their kindergartens and kindergarten enrollments. By systematic sampling procedures, specific kinder-

During outdoor play time children in Romania use natural materials to form geometric shapes.

135

gartens were then selected with PPS (probability proportional to size). Within each selected kindergarten, the coordinator developed a list of all children in the appropriate age-range and then, by systematic sampling procedures, selected 4 of them for the study.

GENERAL INFORMATION ABOUT PHASE 2 DATA COLLECTION

THE INSTRUMENTS

The Phase 2 data collection instruments consisted of three observation systems, three interviews/ questionnaires, and five child developmental status measures. Each of these is described briefly below.

Observation systems

Observations were made in both in-home and out-of-home settings to collect information about what children and adults were doing and how children's time was being organized by adults. The three observation systems were these:

- **Child Activities Observation System**—This observational measure focuses on the activities and interactions of the target child in a given setting. The purpose is to record the types of activities the child is engaged in, the amount of time he or she spends in those various activities, and the grouping the child is involved with (e.g., a large group, with one other child) during the activities. The observation system also includes a procedure for recording the frequency of the target child's verbalizations.
- **Adult Behavior Observation System**—This instrument focuses on the behaviors of the primary adult (e.g., the lead teacher) in a given setting. The purpose is to note the general behaviors of the primary adult and the nature of the adult's general involvement with the children (e.g., supervising, participating actively).
- **Management-of-Time Observation System**—This observational system provides a picture of how the primary adult in a setting organizes, or manages, children's time. The instrument is used to record the activities proposed by the adult, the duration of each activity, and the proposed group structure for the activity.

Interviews and questionnaires

These data collection instruments focus on the early childhood setting, the child's family, and the expectations of teachers and parents. The three instruments used to collect such data were these:

- **Expectations Questionnaire**—This instrument (which has both a teacher and a parent/ guardian version) asks (1) which areas of young children's development teachers (or parents) think are most important and (2) which areas they see as their particular responsibility. Each group (i.e., teachers, parents) is also asked to predict the answers of the other group about these two points.
- **Family Background Interview**—This interview collects information about family characteristics of the target child. It addresses such areas as household composition (number of persons living in the household), parents' educational attainment and employment, and household income.

- Provider Survey—This is a questionnaire administered to the teachers/caregivers of the target child. It focuses on the characteristics of the setting, including its physical description (e.g., size of room, furnishings), management (e.g., administrative policies, staff structure), degree of parent involvement, teacher/caregiver characteristics (e.g., education, experience), enrollment data (e.g., number and ages of children), and materials available for children to use.

Child developmental status measures

Each target child's developmental status was assessed in terms of the following: cognitive development, language development, fine-motor skills, social competence, and preacademic skills. Participating countries were required to administer the cognitive development measure and the language measure; the other three measures were optional.

- **Cognitive Developmental Status Measure**—This assesses children's knowledge in such areas as spatial relations, quantity, and time. It requires the child to demonstrate understanding of a wide variety of concepts by performing an action, pointing to a picture, or responding verbally.
- **Language Developmental Status Measure**—This measure requires the child to perform a variety of tasks—answering questions, matching pictures to words and phrases, or repeating statements—that test both receptive and expressive language skills.
- **Fine-Motor Skills Measure**—This assesses children's small-muscle coordination. The tasks include copying several shapes, touching the fingers of each hand to the thumb of the same hand, and making shapes with clay.
- **Social Competence Measure**—This measure is divided into two parts. In the first, the teacher (or parent) rates the child's social skills; in the second, the child is asked "social thinking" questions—intended to assess the child's knowledge of concepts about self and family, about other people's roles or feelings, and about socially acceptable behavior.
- **Preacademic Skills Measure**—Designed to measure children's school readiness skills, this measure involves asking the child to complete several tasks in three skill areas: number (e.g., rote counting, numeral recognition), prewriting (e.g., copying letters, drawing a person), and prereading (e.g., visual perception, appropriate use of books).

DEVELOPMENT OF THE PROVIDER SURVEY QUESTIONNAIRE

Since the Provider Survey was the instrument used to gather the data for the findings discussed in this monograph, the content and development of this instrument will be described in some detail. Over a 3-year period, researchers from countries participating in the IEA/PPP collaborated on the development of the Provider Survey. The aim was to develop an instrument that would capture detailed information about the structural characteristics of the settings included in the Phase 2 study. (Structural characteristics are broadly defined to include physical characteristics, management, patterns of operation, teacher/caregiver background, and support services.) The topics covered in the Provider Survey were chosen on the basis of their importance for (1) children's development, (2) parental selection of programs, and (3) current policy issues.

The initial concern in developing the survey was that the questionnaire be comprehensive enough to accurately represent the wide range of setting characteristics encountered in the participating countries. To that end, researchers from 5 countries worked as a group to gather samples of existing instruments from all 15 countries and develop a list of potential survey questions. After the list of questions had been developed, national research coordinators (NRCs) from all 15 countries were asked to rate the questions for suitability for the final instrument. A committee of researchers from Nigeria, Belgium, Italy, and the United States reviewed the ratings and agreed on the items to be included. From that list they developed the first version of the Provider Survey, which was used in initial pilot-testing.

The first round of pilot-testing took place March–June of 1990, when a subset of the 15 participating countries pretested the questionnaire in a small sample of settings in their countries. The instrument was revised on the basis of the results of the pilot-testing, and the revised version was used in 1991 in a dry run of all the study instruments in 10 settings in each of the 15 countries. After the dry run, each of the national research coordinators responded to a series of questions regarding the administration of the Provider Survey. Final revisions to the instrument were made based on this feedback from the NRCs.

The development phase yielded two final instruments, one for use in family day care homes and one for group settings. The two instruments have similar formats, with individual questions customized for each of the two setting types. Table 4.1, below, outlines the main sections of the questionnaire for both group settings and family day care homes. An example of the Provider Survey for group setting is in Appendix A; Appendix B contains a Provider Survey for family day care homes.

Table 4.1 Major topics covered in Provider Survey instruments for group settings and family day care homes

Group Settings	Family Day Care Homes
	Introductory questions
Physical description	Physical description
Management	Management
Patterns of operation	Patterns of care
Availability of ancillary services and outside resources	Availability of ancillary services and outside resources
Parent involvement	Parent-caregiver contact
Teacher/caregiver characteristics	Caregiver characteristics
Enrollment	Enrollment
Materials and equipment	Materials and equipment

The majority of questions in the group setting Provider Survey were answered by setting directors, although a subset of the questions (e.g., questions pertaining to teacher background) was answered by teachers or caregivers. In family day care homes, care providers answered all of the questions. Questions in the Provider Survey were divided into three levels. Questions at the first and most basic level were asked in all 15 countries and in every type of setting. Questions at the second level were designated as *international options;* that is, each NRC could decide whether or not to include them in data collection (these included such topics as details of fee structure). Third-level questions were termed *national options.* These questions were considered important by some countries but were not relevant to others. For example, the U.S. survey included questions about small-group activities.

The first- and second-level questions (basic questions and international options) yielded a set of 1,500 variables. The NRCs selected a subset of 500 variables for inclusion in this monograph. The Provider Survey questions yielding these 500 variables are indicated by boldface type in the two forms of the Provider Survey questionnaire in Appendix A and Appendix B. Data from the national option questions are given in various national reports prepared by individual countries.

PHASE 2 DATA COLLECTION PROCEDURES

Phase 2 data collection included the following components:

- In each early childhood setting selected for the study, observers used the three observation systems to collect data on two nonconsecutive mornings. The typical observation period lasted 3 to 3½ hours, with the minimum observation period being 2 hours.
- The teacher/caregiver in each selected setting completed the Provider Survey and the Expectations Questionnaire.
- Data collectors conducted evaluations of child developmental status with each target child and administered the Family Background Interview and the Expectations Questionnaire to the parent/guardian of each target child.

In most countries, data collection began with using the three observation systems. Following that, data collectors administered the interviews and questionnaires to teachers/caregivers and parents/guardians. Data collection concluded with administration of two or more child developmental status measures, depending on the country's choice of these measures. (Researchers in 11 countries elected to include one or more of the three optional child measures.)

PHASE 2 METHODOLOGY IN SPECIFIC COUNTRIES

This section describes the sampling and data collection in each participating country of the Phase 2 study. Table 4.2 (facing page) presents, for each country, the number of settings and number of children (and families) included for each type of setting.

SAMPLING AND DATA COLLECTION IN BELGIUM (FR.—LIÈGE PROVINCE, BRUSSELS)

In Belgium, 95% of children aged 2½ to 6 years attend nursery schools that are subsidized, regulated, and supervised by the National Ministry of Education. In the French-speaking part of Belgium, almost all nursery schools are subsidized by the French Community. There are three main types of educational institutions: approximately half of the nursery schools are run by local authorities, about a third are operated by the Catholic Church, and the remainder are run by the French Community Government. For this study, Belgium's target population was defined as children in the French Community (part of Liège Province and of the Brussels area) who were attending the public (run by local authorities) and the Catholic nursery schools. The children were between ages 4 years 3 months and 4 years 9 months at the time of the child developmental status testing.

On the basis of the IEA/PPP Phase 1 finding that all major forms of early childhood care and education and all major groups of families can be found in Liège Province or Brussels, Belgian

Table 4.2 Number of settings and children/families from various types of settings in Phase 2 of the IEA Preprimary Project

Country/Territory	Achieved Sample Size Settings	Achieved Sample Size Children	Country/Territory	Achieved Sample Size Settings	Achieved Sample Size Children
Belgium (Fr.— Liège Province, Brussels)			**Nigeria (3 states)**		
Public nursery schools	28	84	Urban group settings	48	165
Private nursery schools	27	81	Rural group settings	19	78
China (PRC, 6 provinces)			Urban own homes	30	32
Urban kindergartens	216	462	Rural own homes	54	54
Rural kindergartens	191	414	**Poland**		
Finland			Urban preschools	75	312
Child care centers	66	112	Rural preschools	49	184
Family day care homes	89	89	**Romania**		
Own homes	117	117	Urban normal-day kindergartens	24	96
Greece (urban)			Rural normal-day kindergartens	21	84
Public kindergartens	49	91	Urban long-day kindergartens	24	96
Child care centers	22	66	**Slovenia**		
Hong Kong (SAR)			Kindergartens	44	143
Kindergartens	26	101	**Spain (Catalonia)**		
Child care centers	25	97	Public kindergartens	29	115
Indonesia (Java)			Private kindergartens	25	100
Urban kindergartens	39	153	**Thailand**		
Rural kindergartens	28	98	Educational programs	31	124
Ireland			Child care centers	22	88
Nondisadvantaged preschools	25	90	**United States (6 sites)**		
Disadvantaged preschools	29	103	Head Start centers	31	109
Disadvantaged national schools	27	102	Public school preschools	24	107
Nondisadvantaged national schools	28	101	Other organized programs	45	193
Italy			Family day care homes	32	71
Preprimary schools	143	500	Own homes	77	79

researchers selected these two areas for the Phase 2 study. The researchers divided the nursery schools into six strata according to combinations of two characteristics—type of program (public or Catholic) and class size (small, medium, or large). The Belgian researchers planned to conduct the Phase 2 study in a total of 150 nursery schools, 25 in each stratum.

The sampling plan included the following steps: First, researchers contacted all 475 nursery schools of the French Community area (in Liège Province and Brussels) and asked about their willingness to participate in the study. A total of 98 nursery schools responded positively, and among them, they provided a sufficient number of children in the study's target age-range. Second, researchers assigned the 98 nursery schools to the six strata and randomly selected nursery schools within each. If a given nursery school contained several kindergarten classes for 4-year-olds, project staff randomly selected one for the study. Finally, for each selected classroom, researchers prepared a list of all children in the target age-range and randomly selected three children from the list.

The achieved sample consisted of 165 children in 55 nursery schools, with 84 children in 28 public nursery schools and 81 children in 27 Catholic nursery schools. The participation rate for children/families was 87%, with factors such as illness or change of address contributing to the nonparticipation.

It should be noted that in a departure from Phase 2 general sampling guidelines, Belgium's Phase 2 sampling plan was deliberately not designed to result in a representative sample of 4-year-old children from the country's major types of nursery schools. Rather, because of questions that were of special interest to Belgian researchers, class size was used to build strata to ensure sufficient variability to explore the relationships between Phase 2 findings and classroom characteristics. Researchers expected more variability within each type of school (public or private) than between the types of schools. The reader should keep this special sampling plan in mind while examining the Phase 2 findings for Belgium.

Data collection took place between October 1991 and June 1992 and was carried out by university students who had studied psychology or the science of education for at least 2 years. During practice sessions for each instrument, the local project staff used project materials to train small groups of data collectors. Project staff also monitored the data collection closely. After data collectors coded their information, the coding was carefully verified by the researchers.

SAMPLING AND DATA COLLECTION IN CHINA (PRC, 6 PROVINCES)

In China approximately 80% of 4-year-olds in urban areas attend kindergartens; the percentage is lower for 4-year-olds in rural areas. Those children not attending kindergarten generally remain at home until they begin formal schooling. Various agencies and groups sponsor Chinese kindergartens (e.g., employers, communities), but regardless of sponsorship, all kindergartens are under the direction of the State Education Commission. To ensure a representative sample for this study, China's researchers included kindergartens under a variety of sponsorship. However, they hypothesized that the differences between urban and rural kindergartens would be more striking than any differences they might find among kindergartens having different kinds of sponsors. Consequently, urban and rural kindergartens were the two categories of settings selected for this study. China's target population included children between ages 4 years 4 months and 4 years 9 months at the time of the devel-

Children in an urban setting in China take part in an art activity.

opmental status testing. They were from cities or their nearby rural areas and thus were attending one of the two types of kindergartens selected (i.e., urban, rural).

Sample selection involved these steps: First, researchers selected six provinces representing the following major geographical areas: northeast (Heilong and Liaoning), north (Neiming), central (Hubei), south (Guangdong), and southwest (Guizhou). Then, from each province, they chose a major city and its surrounding rural area for data collection. In each selected province, the research team formed two strata, an urban and a rural, each of which included the major types of kindergartens available (in terms of sponsorship). Each urban stratum included kindergartens with institute, state enterprise, collective enterprise, and neighborhood sponsorship. Each rural stratum consisted of some kindergartens affiliated with primary schools as well as some nonschool-affiliated kindergartens. After consultation with the sampling referee, the researchers selected 40 settings from the urban stratum and 40 settings from the rural stratum in each selected province and randomly chose 3 children from each setting.

The achieved sample consisted of 407 settings/teachers and 876 children/families, including 462 children from 216 urban settings and 414 children from 191 rural settings. No setting refused participation in the study, and no teacher or parent/child refused to complete the data collection. The response rates across the various research instruments varied from 98% to 100%.

In the words of Leslie Kish, "China's sample has several good features, such as the inclusion of six provinces representing five different geographical regions, selecting children from several types of kindergartens, collecting data in both urban and rural areas, and a low nonresponse rate." However, noting that China's sample was not a probability sample representative of all 4-year-old children in the entire country, the sampling referee recommended that instead of weighting the data for national estimates, the data should be treated as a self-weighting sample of the joint population from which it was selected.

Under the guidance of China's research coordinator, each province in the Phase 2 study established a research center. The directors of these provincial centers, who had completed university studies and had more than 5 years of early childhood research experience, each hired 20 data collectors; those hired were kindergarten teachers or principals with 10 to 20 years of experience in early childhood education. Three staff members from the national research center conducted two training sessions in each province, a 2-day session and a 6-day session. The training sessions included studying the instruments, learning data collection techniques from videotapes and demonstrations, and practicing data collection procedures. Data collectors gathered the information between October 1991 and May 1992, then coded it and submitted it to the provincial research centers. Their work was supervised by provincial center staff, who verified the coding. Staff at the national research center then entered the data into computer files and verified and cleaned these files.

SAMPLING AND DATA COLLECTION IN FINLAND

Phase 1 findings indicated that Finland's families use three types of early childhood settings for their 4-year-olds—child care centers, family day care homes, and the child's own home. Finland's target population was thus defined as children attending these three types of settings who were between ages 4 years 3 months and 4 years 9 months at the time of the child developmental status testing. Children residing on the island of Åland—who constituted less than 1% of the age group—were excluded.

The multistage procedures used for sample selection were these: First, on the basis of the Phase 1 research about families' use of early childhood services, the 80 counties surveyed in Phase 1 were grouped into 25 strata based on similarity of patterns of service usage, and a county was then randomly selected from each stratum. In each selected county, researchers formed three strata corresponding to the three major types of early childhood settings (i.e., child care centers, family day care homes, own-home settings). It was proposed that the total number of children in the sample be 318, with the number divided equally among these three types of settings; up to 4 children could be randomly selected from each child care center, while generally only 1 child was available from each family day care home and own-home setting. For children cared for in their own homes or in family day care homes, the researchers randomly selected a sample from those in the target age-range who were listed in the up-to-date day care registers maintained by each county. For children attending child care centers, the researchers first randomly selected centers from county-level listings and then randomly selected children from those in the target age-range.

The achieved sample consisted of 318 children/families, including a small number of substitutions (replacements); there were 112 children from 66 child care centers, 89 children from 89 family day care homes, and 117 children cared for in their own homes. The Finnish sample—chosen from 25 counties that are spread throughout the country and that, as a group, include all three major types of early childhood settings—is a highly representative sample. Response rates for the various instruments ranged from 97% to 100%. Because of the highly representative sample and the high response rates, Finland's Phase 2 data are not weighted.

Finland's data collection spanned October 1991 to November 1992. Data collection was coordinated with eight early childhood teacher-training institutes in different areas of Finland. As a part of their educational program, 484 students from these institutes voluntarily collected the data for the study.

Finland's research staff conducted two day-long training sessions at each of the eight institutes. The first session focused on the measures of child developmental status and the questionnaires/interviews, while the second session focused on the observation systems. A faculty member at each institute participated in the training session and, working cooperatively with the national research center staff, continued the training with the student data collectors. The national center and the training institutes maintained close communication, including a telephone hot line, during the data collection period. The coding of the data was verified first by the supervising faculty member at the institute and then by the national research center staff.

SAMPLING AND DATA COLLECTION IN GREECE (URBAN)

In Greece, approximately 60% of preschool-aged children attend kindergartens (public or private), 30% attend child care centers (public or private), and the remaining children are cared for at home. The target population studied in Greece consisted of children in the Athens and Thessaloniki regions who were attending public kindergartens and public or private child care centers and were between ages 4 years 3 months and 4 years 9 months at the time of the child testing. Because the number of private kindergartens has been steadily decreasing for the past 2 decades, researchers chose not to include them as a Phase 2 setting.

The Phase 2 study in Greece was conducted in 2 of the country's 10 administrative regions—these 2 regions contain the cities of Athens and Thessaloniki and their environs. Although information about rural areas would have been desirable, for a variety of reasons the data collection was restricted to these two mostly urban areas. According to the 1992 national census, the Athens and Thessaloniki regions combined contain 4 million of the 10.3 million people in Greece, or 40% of the country's population. These 4 million include 30% of the children enrolled in public kindergartens and 80% of the children enrolled in public or private child care centers.

Greek researchers divided the Athens region into 11 sections and the Thessaloniki region into 12 sections, with both regions having some sections that were urban, semiurban, or somewhat rural. After all public and private programs (kindergartens and child care centers) in each section were listed, a sample could be selected with PPS using systematic sampling procedures. The proposed plan called for selecting 200 children from 62 settings in the two regions, with equal numbers of public and private programs represented.

The achieved sample contained 157 children from 71 settings, including 91 children from 49 public kindergartens and 66 children from 22 child care centers. Response rates for all instruments ranged from 88% to 100%. Since Greece's sample was drawn from only 2 of the 10 administrative regions of the nation, the sample is not representative of the entire country. There is therefore no weighting of the data to obtain national estimates, and the sample is considered a self-weighting sample of the joint population of Athens and Thessaloniki.

Data collection took place between May and December of 1993. Forty kindergarten teachers—23 in Athens and 17 in Thessaloniki—served as data collectors. Aristotle University faculty and staff conducted training sessions twice weekly during March and April of 1993. Training sessions consisted of reviewing the instruments and practicing each data collection procedure. During actual data collection, university staff also monitored the work and provided assistance when problems arose. Fifteen of the Thessaloniki data collectors were also trained as data coders, and university faculty supervised their work as well.

SAMPLING AND DATA COLLECTION IN HONG KONG (SAR)

In Hong Kong, nearly all 4-year-old children receive early childhood services, with approximately 85% enrolled in kindergartens (half-day programs regulated by the Education Department) and 15% attending day nurseries (full-day programs regulated by the Social Welfare Department). Hong Kong's target population included children attending kindergartens or day nurseries who were between ages 4 years 3 months and 4 years 9 months at the time of the administration of the child measures. (We will refer to day nurseries as "child care centers" in this report.)

The selection of settings and children for the study involved the following steps. First, researchers formed 12 strata by combining the following variables: three localities (Hong Kong Island, Kowloon, New Territories), two types of settings (kindergartens, child care centers), and two sizes of settings (large, small). Second, project staff constructed a sampling frame for each stratum, and the sample of settings was randomly selected so as to be proportionate to the total number of settings available in each stratum. Third, if a selected setting contained multiple classrooms, one of them was randomly selected. Finally, the researchers compiled a list of all children in the target age-range in each setting and selected 4 of them per setting for the study, attempting to balance equally the numbers of boys and girls. The proposed sample was designed to include 100 children from 25 child care centers and 100 children from 25 kindergartens.

The achieved sample consisted of 198 children from 51 settings, including 101 children from 26 kindergartens and 97 children from 25 child care centers. Replacements were needed for both types of settings, because 40% of the selected kindergartens and 20% of the selected child care centers chose not to participate (e.g., setting staff were too busy, the teacher was too inexperienced). In the sample of participating settings, there were no refusals from teachers or from children. Response rates exceeded 90% on every instrument. Because data collection included nearly equal numbers of children in the two types of settings, even though the overall distribution of 4-year-olds is unequal across the two types of settings, appropriate weights are applied to obtain national estimates.

Between October 1991 and June 1992, data were collected by two graduate research assistants with master's degrees in psychology. Hong Kong's research coordinator trained the data collectors through a review of each instrument, peer practice, and supervised practice with children. For the observation measures, the coordinator required the two data collectors to practice observing concurrently in the same setting until they achieved an acceptable degree of interrater reliability. During data collection, the research assistants had weekly meetings with the research coordinator in order to monitor their progress and discuss problems. The graduate research assistants completed the data coding and entry under the supervision of the research coordinator.

SAMPLING AND DATA COLLECTION IN INDONESIA (JAVA)

A small but unknown percentage of 4-year-old children in Indonesia attend early childhood settings of three different types—2-hour play groups, full-day child care centers, and 2-hour preschools. The general term "kindergarten" is used to refer to all these types of settings. Although a large percentage of 4-year-old children are cared for in their own homes, the Indonesian researchers chose, in this study, to focus on those children attending out-of-home settings. The researchers included early childhood programs of all types in their kindergarten sample and selected separate urban and rural samples of kindergartens. The study was conducted on the island of Java, which includes approximately 70% of the total population of Indonesia. The Phase 2 target population included children who were attending kindergartens in three specific provinces of Java and who were between ages 4 years 3 months and 4 years 9 months at the time of the child developmental status testing.

For the Phase 2 study, the Indonesian researchers selected 3 of Indonesia's 27 provinces that contain about 40% of the country's total population—Jakarta, Central Java, and West Java. From these provinces, they developed a sample of urban kindergartens (drawn from Jakarta) and a sample of rural kindergartens (drawn from Central Java and West Java). From all of the selected provinces' educational districts, the researchers randomly chose 5 to 10 districts, and from each of these, they randomly chose 1 to 4 subdistricts for the study. Within each selected subdistrict, the research team randomly selected up to three kindergartens and then, from children in the appropriate age-range, selected a maximum of 4 children per kindergarten for data collection. The proposed sample included 40 kindergartens (160 children) from Jakarta and 30 kindergartens (120 children) from Central Java and West Java.

The achieved sample consisted of 251 children in 67 kindergartens, with the urban sample consisting of 153 children attending 39 kindergartens in Jakarta and the rural sample having 98 children in 28 kindergartens in Central Java and West Java. The response rates exceeded 90% on all measures. Approximately 89% of the Indonesian population are rural and 11% are urban, so appropriate weights have been applied for national estimates.

Forty researchers from the Office of Educational and Cultural Research and Development (OECRD) collected the data between December 1991 and March 1992. Each had previous experi-

In an urban setting in Jakarta (Indonesia) children enjoy listening to a story read by their teacher.

ence in data collection and was familiar with the local languages spoken in the specific areas of the study. During a 3-day training program, the data collectors reviewed and practiced each measure. Since data collection was conducted over a large geographical area, monitoring was done by telephone. The data collectors coded the data and submitted it to the OECRD, where it was checked and compiled.

SAMPLING AND DATA COLLECTION IN IRELAND

The most recent data from Ireland's Department of Education indicate that 56% of 4-year-olds attend the infant classes of the national schools. Using various sources of information, the Irish researchers were able to estimate that at least an additional 20% of 4-year-olds attend other, part-time preschool programs. The sponsors of Ireland's IEA study, particularly the Combat Poverty Agency, requested that the study collect separate data for those programs that were determined to be "disadvantaged" —both among the national school infant classes and among the part-time preschool programs. In the case of the infant classes (national schools), the Department of Education determined what "disadvantaged" would mean, while in the case of the part-time preschools, the Irish researchers themselves made the determination according to whether or not a program received state funds. Consequently, because of this distinction, the target population in Ireland consisted of children between ages 4 years 0 months and 5 years 0 months at the time of the child testing who attended one of four types of early childhood settings: "nondisadvantaged" preschools, "disadvantaged" preschools, "disadvantaged" national schools, and "nondisadvantaged" national schools.

For each of the four types of settings, researchers compiled an up-to-date list of schools throughout the country. Using systematic sampling procedures, they selected an initial sample of 24 to 26 settings of each type. In settings with more than one classroom serving children in the target age-range, researchers randomly selected one classroom. Then, from a list of children within each classroom who were in the target age-range, 4 children per classroom were randomly selected. The proposed sample was designed to include 400 children, with equal numbers from each type of setting. Since it was unclear whether the desired sample size could be found within the 24 to 26 settings of each type, possible replacement settings were identified, and data collection continued until a sample size of approximately 100 children was reached for each type of setting.

The achieved sample consisted of 396 children in a total of 109 settings: 90 children in 25 nondisadvantaged preschools, 103 children in 29 disadvantaged preschools, 102 children in 27 disadvantaged national schools, and 101 children in 28 nondisadvantaged national schools. Response rates for the various instruments ranged from 92% to 100%.

The 42 data collectors had backgrounds primarily in the social sciences, education, or early childhood services, and most were current or recent postgraduate students. Their training lasted 2½ days and consisted of reviewing and demonstrating the instruments, practicing with videotapes, and practicing with settings/persons. The national research center staff closely monitored the data collection, which took place between March 1994 and March 1995, and also verified the data submitted. After an examination of weighted and unweighted findings for several major variables revealed a few small differences, researchers decided to use unweighted data for national estimates.

SAMPLING AND DATA COLLECTION IN ITALY

In Italy, 95% of 3- to 6-year-old children attend preprimary schools *(scuola materna)*, with approximately half of the children attending state preprimary schools and half attending nonstate preprimary schools (run by local government, religious bodies, or private individuals/organizations). For Phase 2, Italy's target population included children attending state and nonstate preprimary schools who were between ages 4 years 3 months and 4 years 9 months at the time of the child developmental status testing.

The study in Italy included the entire country and was stratified on two dimensions: geographical area and population of the commune, calculated on the basis of the total number of children born in each commune between 1 January 1987 and 31 December 1988. Five geographical strata were formed and labeled as northwestern, northeastern, central, and southern Italy and the Islands (Sardinia and Sicily). Fifty communes in these strata were selected using PPS procedures. Researchers then randomly selected three preprimary schools from each of the 50 communes and randomly chose 4 children in the target age-range from each preprimary school, resulting in a proposed sample of 150 settings and 600 children.

The achieved sample included 500 children/families from 143 programs. The response rates ranged from 87% (for the Family Background Interview) to 95% (for the child measures and observation systems). Since Italy's sample is a probability sample, no weights are applied for national estimates.

Fifty-seven university graduates who were psychologists or researchers carried out Italy's data collection between February and May of 1992. Data collectors were trained in small groups during two 3-day training sessions that included an overview of the project and practice with data collection procedures. The national research coordinator monitored the data collectors via telephone throughout the data collection period and checked all data, upon submission, for completeness and accuracy. After each data collector reported completion of his or her task, the coordinator called selected settings and homes to verify that the data collection had occurred.

SAMPLING AND DATA COLLECTION IN NIGERIA (3 STATES)

Fewer than 10% of Nigeria's 4-year-olds attend group settings (such as kindergartens or child care centers), and the remaining children are cared for at home by parents, relatives, or others. Consequently, Nigeria's target population consisted of 4-year-olds in early childhood group settings or those being cared for in their own homes. First, the research team selected three states (Osun, Enugu, Kaduna) that, combined, included the major cultural/ethnic groups of Nigeria. Second, local agencies compiled lists of all group settings in each of these three states, and from this list, programs were randomly selected from both urban and rural areas. Finally, from the children in the target age-range in each selected program, researchers randomly chose a maximum of 4 children per program. The proposed sample included a total of 350 children, with 250 cared for in group settings and 100 cared for in their own homes.

Nigeria's achieved sample consisted of 165 children in 48 urban group settings, 78 children in 19 rural group settings, 32 children cared for in their own homes in urban areas, and 54 children cared for in their own homes in rural areas. The response rates for the observation systems and child developmental status measures were at least 90%, while those for the interviews and questionnaires were lower (64% to 70%). Although 65% of Nigeria's population reside in rural areas, the study's sample was only 34% rural. Consequently, the data have been weighted to obtain national estimates that more closely approximate the urban/rural population distribution.

In each state, Nigeria's national research coordinator employed eight data collectors who were either staff members or graduate students at universities or employed in school systems. One of the eight data collectors was designated as the supervisor, and at least one of the data collectors was a past or present resident of the state. A 10-day training session was conducted for the data collectors, during which each person practiced using each instrument several times.

Throughout the period of data collection (July to September 1992), the supervisors closely monitored the work of other data collectors and worked with them to solve problems that arose. As each submitted data, the supervisor checked and packaged the data for transfer to the national research center. Seven undergraduates at the University of Ibadan coded the data under the supervision of the national research coordinator.

SAMPLING AND DATA COLLECTION IN POLAND

A majority of 4-year-old children in both urban and rural Poland attend preschools directed by the Ministry of Education. A strong interest in learning more about these organized group settings, combined with an interest in comparing the ministry's preprimary programs in urban versus rural areas of the country, guided the Polish research team. Consequently, Poland's target population consisted of children who attended urban and rural preschools and were between ages 4 years 3 months and 4 years 9 months at the time of the child testing.

Poland's researchers developed a multistage cluster sampling plan with the following steps. First, the research staff compiled a list of urban and rural areas of the 49 administrative districts in Poland (this list also indicated the number of children in the approximate target age-range living in each area). Then, using PPS procedures, researchers selected from this list 32 areas (16 urban and 16 rural). Next, from a list of all the preschools in each selected area, they randomly selected 4, resulting in a total of 128 preschools for the proposed sample. Finally, from a list of children in the target age-range in each selected preschool, researchers randomly chose 4 children per preschool, resulting in a total of 512 children in the proposed sample.

The achieved sample contained 496 children enrolled in 124 preschools. Inclusion of a small number of replacement preschools (3% of the final sample) was necessary because some programs were closed or enrolled no children in the target age-range. For approximately 10% of the original sample, replacement children/families were used, since the selected children/families withdrew for various reasons before completion of data collection. The urban/rural distribution of the achieved sample closely paralleled that of Poland's population, so no weights have been used for the calculation of national estimates. Response rates exceeded 90% for the various instruments.

Poland's data collectors were 46 graduates of 2-year or 5-year college programs who had experience in educational settings. The national research coordinator conducted two training sessions, a 2-day session and a 1-day session, that included group discussions, demonstrations, and practice with each instrument. National researchers closely monitored the data collection, which took place between February and June of 1992, and solved problems as they arose. Staff in the national office coded and entered the data for analysis.

SAMPLING AND DATA COLLECTION IN ROMANIA

Until 1990 nearly all 4-year-old children in Romania attended kindergarten, either normal-day programs (4–5 hours) or long-day programs (7–10 hours). Although the percentage of 4-year-olds attending kindergarten has decreased somewhat since 1990 due to the country's political and social changes, by the time of the collection of Phase 2 data Romanian kindergartens still enrolled the majority of 4-year-olds. Romania's researchers were interested not only in comparing the country's two types of kindergartens (i.e., normal-day and long-day), but also in urban-rural program differences. Because rural areas have mainly normal-day programs, however, the study was not able to include long-day programs from rural areas. Romania's target population therefore included children attending three different types of programs—urban normal, rural normal, and urban long—who were between ages 4 years 3 months and 4 years 9 months at the time of the child developmental testing.

Researchers used multistage cluster sampling procedures to select the sample of settings and children in Romania. First, they developed a list containing a variety of information about 37 of the 40 districts in Romania (three districts in which a special dialect was spoken were omitted). After ordering the list, they used PPS procedures to select 8 of the 37 districts. For each selected district, researchers developed a separate list for each of the three types of kindergartens—urban normal programs, rural normal programs, and urban long programs; then, using PPS procedures, they selected from each district's lists three programs of each type, resulting in a total of nine programs per district. Finally, for each program selected, project staff developed a list of children in the target age-range and randomly selected 4 of them per program. The proposed sample for Romania included 288 children in 72 settings.

The achieved sample included 276 children in 69 kindergartens—96 children in 24 urban normal programs, 84 children in 21 rural normal programs, and 96 children in 24 urban long programs. Since the proportions of sample children attending the three different types of settings did not agree with the proportions in the population, weights have been calculated and weighted data are used for national estimates. The response rates for the various instruments varied between 98% and 100%.

Romania conducted data collection between June 1992 and April 1993. Five experienced college graduates served as the primary data collectors, and seven university students (from a college of education) assisted with various aspects of the process. During a 2-week training program, data collectors studied and practiced using each instrument. The national research coordinator and individual data collectors solved problems as they arose.

SAMPLING AND DATA COLLECTION IN SLOVENIA

Slightly more than half of preschool-aged children in Slovenia attend publicly sponsored full-day kindergartens (combined education/care programs), while the rest are cared for in their homes by parents, relatives, or others. Originally the Slovenian research team planned to include in their study children attending own-home as well as out-of-home settings. However, procedural difficulties prevented them from including children at home. Thus, the Slovenian target population was defined as children attending full-day kindergarten who were between ages 4 years 3 months and 4 years 9 months at the time of the child testing.

The multistage procedures used for sample selection were these: First, using various sources of information, researchers selected a sample of 30 counties. Of the 30 counties, 14 were in urban areas and 16 were in semiurban areas that had full-day kindergarten programs attended by children from the surrounding rural areas. In each selected county, the researchers used PPS procedures to select kindergarten programs for study, and from each selected program, they randomly chose 4 children in the target age-range.

The achieved sample contained a total of 143 children in 44 kindergartens. The Slovenian sample was drawn from 30 counties located throughout the country and included children who attend the only type of early childhood setting available to families. Because the sample is representative of the 4-year-old population attending full-day kindergartens, no weights are needed for national estimates. Response rates exceeded 95% for the observation systems, the child developmental status measures, and the Expectations Questionnaire, but they were much lower for the Provider Survey (75%) and Family Background Interview (56%).

Data collection in Slovenia, conducted in May and June of 1993, was supervised by a research coordinator at the University of Ljubljana's Educational Research Institute. The data collectors were 15 university students. They participated in two training sessions, a 1-day session focusing on the child developmental status measures and the questionnaires/interviews and a 1-day session concentrating on the observation systems. Data collection was monitored via a hot line that the students could use to communicate with the national research center. The coding and entry of data were completed at the Educational Research Institute.

SAMPLING AND DATA COLLECTION IN SPAIN (CATALONIA)

In Spain all 4-year-old children attend kindergartens, with 54% enrolled in public programs and 46% enrolled in private programs. Thus, Spain's target population consisted of children attending the two types of kindergartens who were between ages 4 years 0 months and 5 years 0 months at the time of the child testing. The study was confined to Catalonia, an autonomous community in northeastern Spain that has a total population of 6 million.

Catalonian researchers used the following procedures to select the sample for the study. First, they prepared an up-to-date list of public kindergartens that indicated the total number of 4-year-olds enrolled; that list was ordered from large urban areas to remote rural areas. Using PPS procedures, the researchers selected from this list 29 kindergartens for the study. A similar process was followed to select 26 private kindergartens for the study. Finally, from a list of children in the target age-range in each selected public or private kindergarten, researchers randomly chose 4 children per kindergarten. The proposed sample consisted of 116 children enrolled in 29 public kindergartens and 104 children enrolled in 26 private kindergartens.

The achieved sample included a total of 215 children in 54 settings—115 children in the 29 public kindergartens and 100 children in 25 private kindergartens. The refusal rate for participation was extremely low (2%). Among those participating, the nonresponse rates to the various instruments ranged from 0% to 7%.

The study sample and Catalonia's 4-year-old population were similar in both the proportions attending public and private kindergartens and the proportions in urban and rural areas. This information, combined with the low refusal and nonresponse rates, led to the decision that no weighting of the data would be necessary for national estimates.

Thirty-two people who had graduated from or were currently enrolled in psychology or education programs at Catalan universities served as data collectors. Following a 2-day introduction to the study and the instruments, they participated in a 1-week training session consisting of supervised practice in local schools. The final day of training was devoted to clarification of items and procedures and an evaluation of the data collectors.

During the data collection period (May and June of 1992), the data collectors submitted data promptly to the national research center, where they were checked for completeness and consistency. Following data collection, 16 of the data collectors coded and entered the data for analysis. A professional firm was contracted to check the accuracy of the data coding and entry.

SAMPLING AND DATA COLLECTION IN THAILAND

The majority of Thailand's 4-year-old children attend group settings (educational programs, child care centers), while the remaining children of that age are cared for in their own homes. Since the Thai research team was interested primarily in children's participation in group settings, Thailand's target population included children attending child care centers and educational programs who were between ages 4 years 3 months and 4 years 9 months at the time of the child testing.

The sampling plan for Phase 2, which was based on information provided by Phase 1 of the IEA/PPP, included the following steps. First, from the 33 provinces included in the Phase 1 study, researchers selected 17 to represent the five major geographical strata of Thailand (northern, northeastern, central, southern, and Bangkok). Second, in each of the 17 provinces, researchers randomly selected six facilities from a single, combined list of child care and education facilities of various sizes. The proposed sample included 208 children in 52 settings, with 116 children attending 29 educational settings and 92 children attending 23 child care settings.

The achieved sample consisted of 212 children in 53 settings, with 124 children from 31 educational settings and 88 children from 22 care settings. The response rates to the various research instruments ranged from 98% to 100%. After comparing the major characteristics of the sample with those of the population and examining weighted and unweighted data, researchers determined that unweighted data could be used for national estimates.

Thailand's data collectors were 11 women with master's degrees in education and experience working with children. Their training began with a 1-day introductory session, followed by a 1-week self-study period. Then project staff conducted a 4-day training session consisting of demonstrations and supervised practice with the various instruments. Data collectors practiced by watching videotapes and then collecting information in actual settings. Their training concluded with a 1-day session for review, discussion, and evaluation.

Project staff closely monitored the data collectors and resolved problems as they developed, checked the data for completeness and accuracy on submission, and supervised the coding and entry of the data. Data collection covered two periods: September 1992 to February 1993 and March 1993 to August 1993.

SAMPLING AND DATA COLLECTION IN THE UNITED STATES (6 SITES)

According to the results from Phase 1 of the IEA/PPP, a fairly large percentage of U.S. families with preschool-aged children make use of organized care/education programs or family day care homes; approximately 40% care for their own preschoolers at home. Therefore, U.S. researchers included those three types of settings in their Phase 2 study; they also distinguished two specific types of organized programs that are important for public policy reasons—Head Start programs and public school preschool programs. Thus, the American target population included children in (1) Head Start programs, (2) public school preschools, (3) other organized programs, (4) family day care homes, and (5) own-home settings. The target children were between ages 4 years 0 months and 5 years 0 months at the time of the child developmental status testing.

The researchers selected six data collection sites around the United States, ensuring that varying degrees of urbanization were represented among them. The sites included three large, densely populated metropolitan areas (Newark, NJ; Los Angeles, CA; Santa Clara County, CA); a mostly rural county containing one medium-sized city (Calhoun County, MI); and two sparsely populated, small-town/rural sites (the six-county Delta region of Mississippi and rural sections of two counties in southeastern Michigan). Together, the six sites included families from all major cultural/ethnic and socioeconomic groups in the United States. From each of the six sites, researchers planned to select children to represent the five categories of settings listed in the previous paragraph.

Different sampling procedures were developed for selecting children from the various categories of early childhood settings. For selecting those from Head Start and public school preschool programs, researchers developed an up-to-date list for each of the six data collection sites; then, using PPS procedures, they selected from each site where such programs existed, five programs of each type (Head Start and public school) for the study. For each of these five programs, a list of children in the target age-range was developed, and from these lists, 4 children per program were randomly selected. The plan was to obtain from each site 20 children representing Head Start and 20 children representing public school preschool.

Children in a Head Start center in the United States use "binoculars" to see some birds more clearly.

To select children cared for in the remaining three categories of settings—other organized programs, family day care homes, and own-home settings—area sampling and listing-and-screening procedures were used within each site to identify children attending each of the three types of settings. Then, within each site, researchers compiled a list of children/settings identified by the listing-and-screening procedures, from which they selected a sample of children for the study.

The proposed sample included 600 children, with 120 children participating in each of the following five categories of settings: Head Start programs, public school preschool programs, other organized programs, family day care homes, and the child's own home.

The achieved sample consisted of a total of 559 children: 109 children enrolled in 31 Head Start programs, 107 children attending 24 public school preschool programs, 193 children in 45 other types of organized programs, 71 children in 32 family day care homes, and 79 children cared for in their own homes. Response rates were at least 90% for every instrument but the Provider Survey (77%). Since the sample's proportions of children in the various types of settings did not approximate actual proportions in the population, weights are used for calculating national estimates.

A site coordinator supervised each of the six data collection sites in the U.S. study. The coordinator had a university degree in education or a related field and had at least 5 years of experience in early childhood education or a related field, such as social work. Each coordinator hired a site data collector with similar credentials. Following a period of self-study, all site coordinators and data collectors traveled to the national research center for 2 weeks of training, including practice with all instruments with nearby settings and families. Data collection was conducted between March 1992 and December 1993.

* * *

As the methodology described indicates, Phase 2 of the IEA/PPP was a complex research undertaking in which sampling strategies had to be different from country to country. Once each country had identified its key types of early childhood settings for inclusion in the study, then national researchers, together with the sampling referee, had to devise the best approach for using available sources of information to select representative samples of settings and families. In some countries (e.g., Finland), the sampling procedures could be straightforward because of the ready availability of comprehensive listings; in others (e.g., the United States), where few listings existed, complicated procedures such as listing-and-screening had to be followed. However, amid the necessary variations in national sampling strategies, two facts stand out: nearly every country was able to include its entire geographical area in the study, and nearly every country was able to include its major types of early childhood settings. Thus, in most cases, the sample of settings used for the study was representative of a country's total population of settings. This fact, together with the consistently high response rates in the 15 countries, constitutes a strength of this study that should be kept in mind when reading later chapters about Phase 2 findings concerning structural characteristics of settings.

SUMMARY STATEMENTS

- **In most participating countries, the geographic area covered by the Phase 2 study included the entire country.**
- **In nearly every country, the sample of settings included all major types of early childhood settings and was representative of the total population of such settings in the country.**

- **In most countries, only a few settings (if any) refused to participate in the study, even though the data collection took several days and looked closely at adult as well as child behaviors.**
- **In nearly every country, response rates exceeded 80% for all Phase 2 instruments. Many countries had response rates above 90% on most instruments.**

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THE FINDINGS

V

MANAGEMENT POLICIES AND STAFFING

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This first section of findings presents the study's results concerning structural characteristics of early childhood settings that are related to management policies. Information is presented about setting sponsors, licensing and supervision systems, criteria for admissions, types of records maintained, parent fees, and staffing patterns.

As the literature review notes, in some countries the decision to provide services to young children results from the belief that children are entitled to such services or that services are needed due to poverty, migration of families, or other societal conditions. In these countries one is likely to see widespread government sponsorship of early childhood services. The government department(s) responsible for these services often depends on the perceived purpose for the services and could include a ministry of education, ministry of health, and/or ministry of social welfare. In other countries, the government plays little or no role in the provision of early childhood services. When these services do exist in these countries, they are often sponsored by religious organizations, for-profit and nonprofit agencies, and community organizations.

Sponsorship can be a major determinant of management policies and practices, such as licensing and supervision and the maintenance of records. The sponsor may also influence admissions criteria (e.g., family needs to belong to a specific religion, parent works for a specific employer) and staff qualifications.

The Provider Survey questionnaire included questions about each of the management structural characteristics just described; the remainder of this section presents these findings. The results are from directors and teachers in approximately 1,500 early childhood settings across 15 countries.

SPONSORS OF EARLY CHILDHOOD SETTINGS

The sponsor of an early childhood setting is usually the agency or organization that provides funding and establishes guidelines for its operation in matters such as curriculum, staffing, and admissions. For some types of settings (e.g., public preschools), a single agency (e.g., ministry of education) may provide both funding and program guidelines. For other types of settings (e.g., private preschools), one agency may provide funding (e.g., religious organization) while two or more groups (e.g., ministry of education, religious organization) provide program guidelines.

This section presents three sets of findings about sponsorship in early childhood settings in the 15 countries in the study. First, we identify the types of sponsors for settings in the different nations. Then, the proportion of early childhood settings in various nations having 2 or more different sponsors are presented. These findings are of interest because while having multiple sponsors may result in a higher level of financial support, it may also mean that the setting needs to reconcile two or more sets of guidelines for operation (e.g., education requirements for staff, licensing/supervision criteria). Finally, we document the proportion of settings in which the government is a sponsor.

GENERAL SPONSOR FINDINGS

This section presents information about the general categories of sponsors identified according to setting in each country. The Provider Survey questionnaire included a list of 22 specific sponsors, and each setting director was requested to identify the primary sponsor of the setting from this list. If the setting had more than one sponsor, the director was asked to identify the additional sponsor(s).

For summarizing the findings, the 22 specific sponsors listed in the Provider Survey have been collapsed into the following 7 general categories.

General category	*Examples of specific sponsors included in category*
(1) Government	Federal agency, municipal/local agency
(2) Educational	Primary/secondary school, college/university
(3) Religious	Church, religious group
(4) Employer	Company, hospital
(5) Voluntary	Volunteer neighborhood organization, parent cooperative
(6) Private	Private individual, private organization
(7) Other	Nongovernmental social service agency

A *multiple sponsor* category was also created for settings that had sponsors in 2 or more general categories.

Table 5.1 (facing page) and Figure 5.1 (p.142) present, for each of the 24 types of settings providing findings, the percentage having various categories of sponsors. As the findings indicate, there are many different kinds of sponsors across the various types of settings and sometimes even within a single country. The exception is Romania, in which the government sponsors 100% of the centers for all 3 types of settings.

Table 5.1 Percentage of settings with various major categories of sponsors

		Categories of Sponsors								
Country/Territory	*N*	(1) Govt	(2) Educ Inst	(3) Relig Org	(4) Empl	(5) Volun Org	(6) Priv	(7) Other	(8) Mult Spons	(9) No Info
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	100	0	0	0	0	0	0	0	0
Private nursery schools	27	0	0	0	0	0	0	0	100	0
China (PRC, 6 provinces)										
Urban kindergartens	216	18	0	0	0	0	0	0	82	0
Rural kindergartens	191	17	0	0	0	0	0	0	82	1
Finland										
Child care centers	66	98	0	0	0	0	0	0	0	2
Greece (urban)										
Public kindergartens*	49	100	0	0	0	0	0	0	0	0
Child care centers	22	61	0	0	0	0	39	0	0	0
Hong Kong (SAR)										
Kindergartens	26	0	0	28	0	0	48	12	8	4
Child care centers	25	0	0	40	0	0	20	24	12	4
Indonesia (Java)										
Urban kindergartens	39	0	5	11	0	0	46	5	33	0
Rural kindergartens	28	15	4	0	0	7	19	33	22	0
Ireland										
Nondisadvantaged preschools	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Disadvantaged preschools	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Disadvantaged national schools	27	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nondisadvantaged national schools	28	NI	NI	NI	NI	NI	NI	NI	NI	NI
Italy										
Preprimary schools	143	6	0	0	0	0	0	0	94	0
Nigeria (3 states)										
Urban group settings	48	2	11	32	0	0	34	0	13	8
Rural group settings	19	0	0	17	0	11	28	0	11	33
Poland										
Urban preschools	75	69	0	0	0	0	0	3	28	0
Rural preschools	49	89	0	0	0	0	0	0	11	0
Romania										
Urban normal-day kindergartens	24	100	0	0	0	0	0	0	0	0
Rural normal-day kindergartens	21	100	0	0	0	0	0	0	0	0
Urban long-day kindergartens	24	100	0	0	0	0	0	0	0	0
Slovenia										
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	23	0	0	0	3	0	0	58	16
Child care centers	22	27	9	0	0	0	0	0	64	0
United States (6 sites)										
Head Start centers*	31	100	0	0	0	0	0	0	0	0
Public school preschools	24	0	0	0	0	0	0	0	95	5
Other organized programs*	45	18	6	15	0	0	34	3	15	9

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

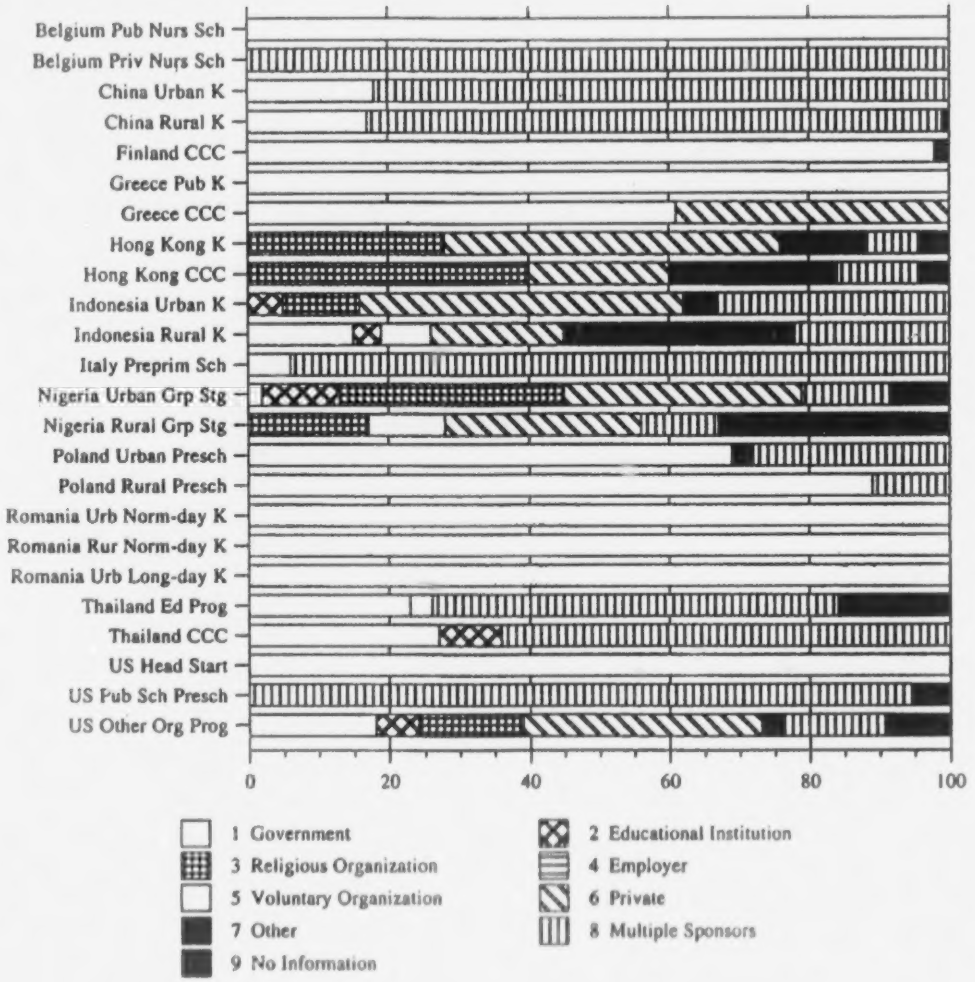


Figure 5.1 Percentage of settings with various categories of sponsors

For many types of settings, the government is the sole sponsor for the largest percentage of settings. This is true for the following settings:

• Belgium	Public nursery schools
• Finland	Child care centers
• Greece	Public kindergartens and child care centers
• Poland	Urban preschools and rural preschools
• Romania	All 3 types of settings
• United States	Head Start centers

However, in many nations the government is sometimes not only the sole sponsor of one type of setting but also one of multiple sponsors for other types. Later in this section we will present information about the percentage of each type of setting for which the government is either the sole sponsor or one of multiple sponsors.

In Hong Kong, private individuals/organizations and religious organizations sponsor large percentages of early childhood settings. These 2 categories of sponsors are also found in Indonesia and Nigeria. Across the various types of early childhood settings, some categories of sponsors were noted only infrequently, such as employer or voluntary organization.

As mentioned earlier, in Romania the pattern of sponsorship is identical for all 3 types of settings. The pattern is nearly identical for the 2 types of settings in Poland. Countries in which the sponsorship pattern varies markedly by type of setting include Indonesia and the United States.

MULTIPLE SPONSOR FINDINGS

First we will look at the prevalence of multiple sponsors for early childhood settings in various countries, and then we will look at the types of sponsors that make up these combinations. What percentage of settings reported having multiple sponsors? Using the list of 22 specific sponsors, in Table 5.2 on the following page we present the percentage of settings with 1 sponsor, 2 sponsors, or 3 sponsors.

An example using a particular type of setting should clarify the findings presented in Table 5.1 and Table 5.2. The raw data show that public nursery schools in Belgium have 2 different specific sponsors—a government agency and a municipal/local agency. Since both of these sponsors are classified as "government," the settings were reported under *government* as a general category in Table 5.1. However, since each setting actually works with two *different* specific government agencies, in Table 5.2 the settings are reported in the *2-sponsor* column. Twenty-four types of settings reported their sponsorship; the findings indicate that for 9 types, two thirds or more of the settings have multiple sponsors.

If we now look at the combinations of sponsors identified by the setting directors in these 9 types of settings, we find that some types of settings reported either 1 or a small number of different sponsor combinations for their multiple sponsors. For example, as just noted, the raw data indicate that all public nursery schools in Belgium are sponsored by agencies at two levels of government. Also, the raw data indicate that all *private* nursery schools in Belgium are sponsored by a government agency and a religious organization. In Italy, the raw data show that most of the multiple-sponsored settings are combinations of an educational institution and a government agency, while in the United States the multiple sponsors for Head Start centers and public school preschools include either two levels of government or combinations of an educational institution and a government agency.

China presents an interesting situation, since in both urban and rural China many different agencies and organizations sponsor early childhood settings, yet the government is always considered to be a cosponsor. For example, the raw data indicate that in urban China employers operate 63% of early childhood settings, and private organizations/individuals operate an additional 5%. In rural China, the raw data indicate that neighborhood organizations operate the majority of early childhood settings. However, due to the nature of the government's involvement in early childhood settings (e.g., direct or indirect provision of funding, mandating of licensing/supervision criteria), it is also considered to be a sponsor of all settings.

Table 5.2 Percentage of settings having 1, 2, or 3 sponsors

		Number of Sponsors			
Country/Territory	*N*	1 Sponsor	2 Sponsors	3 Sponsors	No Information
Belgium (Fr.—Liège Province, Brussels)					
Public nursery schools	28	0	100	0	0
Private nursery schools	27	0	100	0	0
China (PRC, 6 provinces)					
Urban kindergartens	216	18	82	0	0
Rural kindergartens	191	17	82	0	1
Finland					
Child care centers	66	98	0	0	2
Greece (urban)					
Public kindergartens*	49	100	0	0	0
Child care centers	22	100	0	0	0
Hong Kong (SAR)					
Kindergartens	26	88	8	0	4
Child care centers	25	80	12	4	4
Indonesia (Java)					
Urban kindergartens	39	68	24	8	0
Rural kindergartens	28	78	22	0	0
Ireland					
Nondisadvantaged preschools	25	NI	NI	NI	NI
Disadvantaged preschools	29	NI	NI	NI	NI
Disadvantaged national schools	27	NI	NI	NI	NI
Nondisadvantaged national schools	28	NI	NI	NI	NI
Italy					
Preprimary schools	143	1	91	8	0
Nigeria (3 states)					
Urban group settings	48	79	9	4	8
Rural group settings	19	55	6	6	33
Poland					
Urban preschools	75	68	23	9	0
Rural preschools	49	89	7	4	0
Romania					
Urban normal-day kindergartens	24	100	0	0	0
Rural normal-day kindergartens	21	100	0	0	0
Urban long-day kindergartens	24	92	8	0	0
Slovenia					
Kindergartens*	44	NI	NI	NI	NI
Spain (Catalonia)					
Public kindergartens	29	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI
Thailand					
Educational programs	31	16	26	42	16
Child care centers	22	32	32	36	0
United States (6 sites)					
Head Start centers*	31	0	61	39	0
Public school preschools	24	0	95	0	5
Other organized programs*	45	58	12	21	9

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

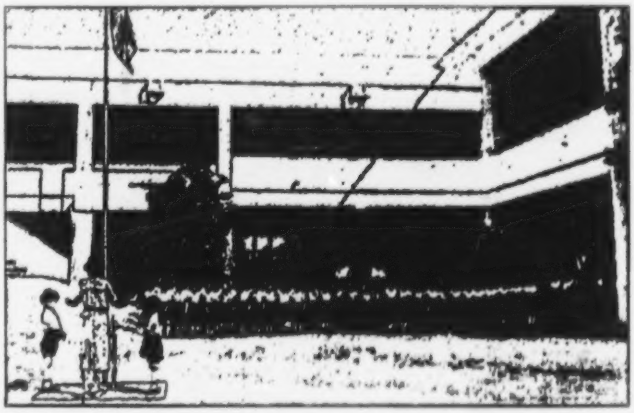
Two examples of types of settings with more complex multiple sponsor patterns are presented below.

(1) *Indonesian urban kindergartens.* Table 5.2 reports that 24% of the settings (9 settings) have 2 sponsors. An examination of the raw data reveals that each of these 9 settings has a different combination of 2 sponsors. Some examples of the combinations identified by the respondents are

- Religious organization and volunteer parent organization
- Parent cooperative and private foundation
- Private business and private individual
- Religious organization and private foundation

(2) *Thailand's educational programs.* Table 5.2 reports that 26% of the programs (8 settings) have 2 sponsors and that 42% of the programs (13 settings) have 3 sponsors, resulting in a total of 68% of programs having multiple sponsors. The settings with 2 sponsors include six different combinations, and each of the settings with 3 sponsors has a different combination. Examples of the 3-sponsor combinations identified by respondents are

- Educational institution, government agency, and private individual
- Federal agency, religious organization, and volunteer parent organization
- Federal agency, volunteer parent organization, and private foundation
- Government agency, religious organization, and parent cooperative
- Government agency, private business, and parent cooperative



Children sing the national anthem every morning at a private setting in Thailand.

For these settings in Indonesia and Thailand and for other settings with multiple sponsors, setting operation is a complex activity, with funding (or in-kind support) from multiple sources and with multiple sets of regulations and guidelines.

PERCENTAGE OF SETTINGS WITH GOVERNMENT SPONSORSHIP

The percentage of early childhood settings with the government as a sponsor is obtained by combining (1) the percentage of early childhood settings in which the government is the sole sponsor and (2) the percentage of settings in which the government is one of multiple sponsors. Table 5.3 (on p. 146) and Figure 5.2 (on p. 147) present the results of these combinations for 24 types of settings across 12 countries.

Table 5.3 Percentage of settings with the government as a sponsor

Country/Territory	*N*	%
Belgium (Fr.—Liège Province, Brussels)		
Public nursery schools	28	100
Private nursery schools	27	100
China (PRC, 6 provinces)		
Urban kindergartens	216	100
Rural kindergartens	191	100
Finland		
Child care centers	66	100
Greece (urban)		
Public kindergartens*	49	100
Child care centers	22	61
Hong Kong (SAR)		
Kindergartens	26	0
Child care centers	25	0
Indonesia (Java)		
Urban kindergartens	39	0
Rural kindergartens	28	26
Ireland		
Nondisadvantaged preschools	25	NI
Disadvantaged preschools	29	NI
Disadvantaged national schools	27	NI
Nondisadvantaged national schools	28	NI
Italy		
Preprimary schools	143	99
Nigeria (3 states)		
Urban group settings	48	2
Rural group settings	19	0
Poland		
Urban preschools	75	96
Rural preschools	49	98
Romania		
Urban normal-day kindergartens	24	100
Rural normal-day kindergartens	21	100
Urban long-day kindergartens	24	100
Slovenia		
Kindergartens*	44	NI
Spain (Catalonia)		
Public kindergartens	29	NI
Private kindergartens	25	NI
Thailand		
Educational programs	31	88
Child care centers	22	77
United States (6 sites)		
Head Start centers*	31	100
Public school preschools	24	100
Other organized programs*	45	27

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

The findings in Table 5.3 (and as seen in Figure 5.2) indicate that in 4 countries (Belgium, China, Finland, and Romania), the government sponsors 100% of *all* types of settings. In 2 other countries (Italy and Poland), the government is a sponsor of 90% or more of all types of early childhood settings; in Thailand, it sponsors 75% or more of all types of settings. Thus, in 7 of the 12 countries the government sponsors at least three fourths of all types of early childhood settings.

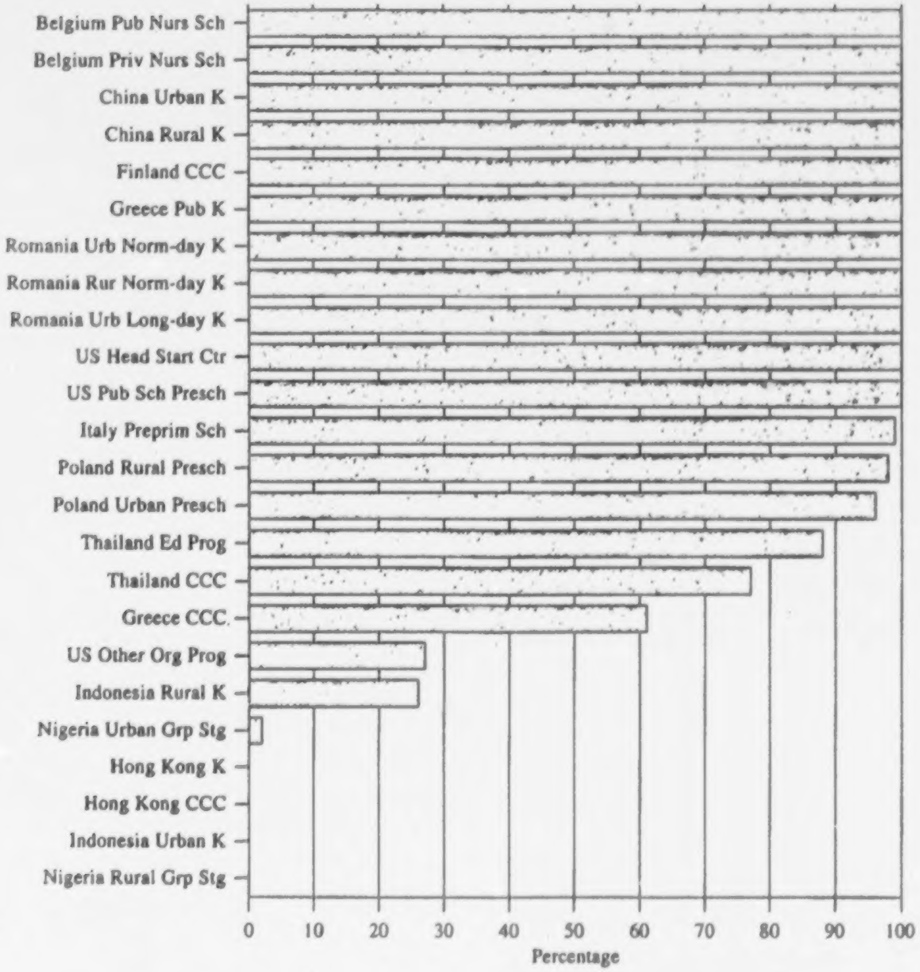


Figure 5.2 Percentage of settings with the government as a sponsor

In 2 nations, Greece and the United States, 100% of at least 1 type of setting have the government as a sponsor, while the percentage of government sponsorship for another type of setting is much lower.

- Greece Public kindergartens—100%, child care centers—61%
- United States Head Start centers—100%, public school preschools—100%, other organized programs—23%

These findings and those in the previous paragraph indicate that the government sponsors all or nearly all of at least 1 type of early childhood setting in 9 of the 12 countries reporting findings in Table 5.3.

The percentage of government sponsorship of early childhood settings in the remaining 3 countries reporting findings is extremely low.

- Hong Kong — Kindergartens—0%, child care centers—0%
- Indonesia — Urban kindergartens—0%, rural kindergartens—26%
- Nigeria — Urban group settings—2%, rural group settings—0%

It is useful to note that both developed countries and developing countries are included in (1) the group of countries in which the government is a major sponsor of early childhood settings (e.g., Belgium, Finland, China, Romania), and (2) the group of countries in which the government is *not* a major sponsor of early childhood settings (e.g., Hong Kong, Nigeria).

LICENSING AND SUPERVISION OF EARLY CHILDHOOD SETTINGS

As noted in the literature review, licensing and supervision systems were established to maintain a basic level of quality in early childhood programs by setting minimum standards for specific structural characteristics and then monitoring programs to ensure that they maintain these standards. In many countries, national ministries/agencies regulate licensing and supervision, at least for those settings that are sponsored or supported by the government. In other countries, regional or local government agencies may have the authority for the licensing and supervision of early childhood settings. Finally, in nations in which private organizations sponsor settings for the care and education of young children, these organizations may have their own systems for licensing/certification and supervision. Several of the national profiles in Chapter 3 present information about the regulations for licensing and supervision for some of the participating nations.

The fact that a country has a licensing/certification system provides little information about the areas of focus of the regulations or the minimum standards established. For example, different countries may regulate and monitor group size, but the maximum group size allowed may vary from country to country depending on the availability of qualified teachers/caregivers, amount of funding or support available, and other factors.

Also, in some nations there may be political influences on the licensing system. For example, some persons in positions of power may want their early childhood care and education system to "look good," thus they establish fairly nonrestrictive standards so that nearly every setting in operation qualifies for official licensing. As another example, a strong concern for children's safety may produce very strict standards (e.g., for outside play areas) that keep most settings from meeting licensing standards.

Finally, there were nations in which the licensing/certification and supervision system was still being developed at the time of data collection. In Ireland, for example, no formal licensing/certification system existed at the time of data collection for either the preschool settings or the national school settings. National schools were monitored by the Department of Education and Sciences every 2–4 years to offer support and guidance to schools and teachers, not as part of a licensing process. There also was no oversight system for preschools, and the findings reported in this section reflect the minimum requirements for membership in the preschool organization in Ireland. The directors of Ireland's national study consider the findings included in this section to appropriately reflect the situation in their country as long as the reader is aware of the systems as they existed at the time of the data collection.

Therefore, although the findings reported here provide some basic factual information about licensing and supervision, a more detailed analysis of such systems in different countries (including the areas of focus, the minimum standards, and the political and professional context of the licensing system) would be necessary for a full understanding of the topic.

The director section of the Provider Survey questionnaire included a series of questions regarding licensing and supervision. First, each director was asked *Is this program presently licensed or certified by law?* All directors who answered yes were then asked this series of follow-up questions:

(1) *How long has the setting been licensed or certified?*
(2) *Who is it licensed or certified by?*
(3) *Please tell me the criteria which facilitated licensing of this program.*
(4) *Is the licensing or certification reviewed? If so, how often does this review occur?*
(5) *Is there any supervision of the setting by the licensing/certification body? If so, how often does this supervision occur? What type of supervision occurs?*

The findings for all follow-up questions except the one asking about the criteria for licensing are included here. Due to the large amount of missing data for many countries for that specific item, we decided not to present those findings.

This section presents the directors' responses to the licensing and supervision questions listed above. First, we look at the percentage of settings of each type that directors indicated were licensed or certified. Then, for those settings, we examine the responses to each of the follow-up questions.

PERCENTAGES OF SETTINGS LICENSED OR CERTIFIED

Table 5.4 (following page) presents, by type of setting in each participating nation, the percentages of settings that are licensed/certified as well as the percentages (1) in process of being licensed/certified, (2) not licensed or certified, and (3) not required to be licensed/certified. The table includes data for 30 different types of settings in 14 countries, with only the findings for kindergartens in Slovenia missing.

As the column *% Yes* in Table 5.4 indicates, 100% of 8 different types of settings in 6 countries are licensed/certified:

• Belgium	Public and private nursery schools
• Greece	Public kindergartens
• Hong Kong	Kindergartens and child care centers
• Poland	Rural preschools
• Spain	Public kindergartens
• United States	Head Start centers

Also, 90% to 99% of the settings in 14 additional types of settings across 9 countries are licensed or certified. Taken together, these findings indicate that in 22 of the 30 types of settings, 90% or more of the settings are licensed or certified. These 22 types include settings in Asia (Hong Kong, Indonesia), western Europe (Belgium, Italy, Spain), eastern Europe (Poland, Romania) and North America (United States), suggesting that licensing systems are in operation in many parts of the world.

Table 5.4 Percentage of early childhood settings in different stages of licensing/certification

Country/Territory	N	N Reporting Finding	Licensing/Certification Stage % Yes	% In Process	% No	% Not Required
Belgium (Fr.—Liège Province, Brussels)						
Public nursery schools	28	28	100	0	0	0
Private nursery schools	27	27	100	0	0	0
China (PRC, 6 provinces)						
Urban kindergartens	216	212	78	17	5	0
Rural kindergartens	191	186	70	22	8	0
Finland						
Child care centers	66	60	98	0	0	2
Greece (urban)						
Public kindergartens*	49	37	100	0	0	0
Child care centers	22	22	96	0	0	5
Hong Kong (SAR)						
Kindergartens	26	25	100	0	0	0
Child care centers	25	25	100	0	0	0
Indonesia (Java)						
Urban kindergartens	39	37	97	3	0	0
Rural kindergartens	28	27	96	4	0	0
Ireland						
Nondisadvantaged preschools	25	19	47	5	5	42
Disadvantaged preschools	29	24	54	4	17	25
Disadvantaged national schools	27	22	96	0	0	5
Nondisadvantaged national schools	28	24	92	0	4	4
Italy						
Preprimary schools	143	132	99	0	1	1
Nigeria (3 states)						
Urban group settings	48	46	72	13	7	9
Rural group settings	19	18	72	22	6	0
Poland						
Urban preschools	75	75	99	0	1	0
Rural preschools	49	46	100	0	0	0
Romania						
Urban normal-day kindergartens	24	24	92	8	0	0
Rural normal-day kindergartens	21	21	90	0	5	5
Urban long-day kindergartens	24	24	96	0	4	0
Slovenia						
Kindergartens*	44	NI	NI	NI	NI	NI
Spain (Catalonia)						
Public kindergartens	29	26	100	0	0	0
Private kindergartens	25	22	95	5	0	0
Thailand						
Educational programs	31	31	45	0	0	55
Child care centers	22	21	0	0	0	100
United States (6 sites)						
Head Start centers*	31	23	100	0	0	0
Public school preschools	24	20	95	5	0	0
Other organized programs*	45	29	93	7	0	0

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

The remaining types of settings in the % *Yes* column of Table 5.4 can be divided into two groups:

(1) Types of settings in which less than 90% of the settings are currently licensed or certified, but in which 85% or more of the settings are either (a) presently licensed/certified

or (b) in process of being licensed or certified. The 4 types of settings in this group include

• China	Urban kindergartens and rural kindergartens
• Nigeria	Urban group settings and rural group settings

The fact that only developing countries fall into this group might suggest that in these countries there has been a recent change in either the characteristics or the context of the licensing system (e.g., additional personnel hired to implement the system, a change in the standards to increase the likelihood that settings will apply for licensing).

(2) Types of settings in which directors indicated that licensing/certification was not required for 25% or more of the settings. The 4 types of settings in this group include

• Ireland	Disadvantaged preschools—25%, nondisadvantaged preschools—42%
• Thailand	Educational programs—55%, child care centers—100%

In summary, the findings in Table 5.4 indicate that (1) in 26 of the 30 types of settings, 85% or more of the settings are either presently licensed/certified or are in process of becoming so, and (2) in 4 types of settings, although 0% to 54% of settings are licensed, a small to moderate percentage of the directors noted that licensing or certification is not required. The graph in Figure 5.3 (following page) provides a summary of these findings.

LENGTH OF TIME SETTINGS HAVE BEEN LICENSED OR CERTIFIED

Most countries shown in Table 5.4 are similar in that a majority of their settings are licensed/certified (or in the process). The findings presented in Table 5.5 (on p.153), however, show there is great variation in the median length of time that settings have been licensed/certified. Median years of licensing or certification range from 1 to 26 across the 22 different types of settings in the 11 countries reporting these data.

Directors in 3 types of settings report median lengths of licensing/certification of 20 years or more.

• Ireland	Disadvantaged national schools—20 years, nondisadvantaged national schools—21 years
• United States	Head Start centers—26 years

The directors in 11 other types of settings reported median lengths of licensing/certification between 10 and 19 years, including settings located in 8 different countries (Finland, Greece, Hong Kong, Indonesia, Ireland, Italy, Poland, and the United States).

Finally, the directors of 8 different types of settings across 6 countries reported a median between 1 and 9 years for licensing/certification. These settings and countries are as follows:

• China	Urban kindergartens—1 year, rural kindergartens—1 year
• Hong Kong	Child care centers—9 years
• Ireland	Nondisadvantaged preschools—7 years
• Nigeria	Urban group settings—3 years, rural group settings—4 years
• Thailand	Education programs—9 years
• United States	Public school preschools—4 years

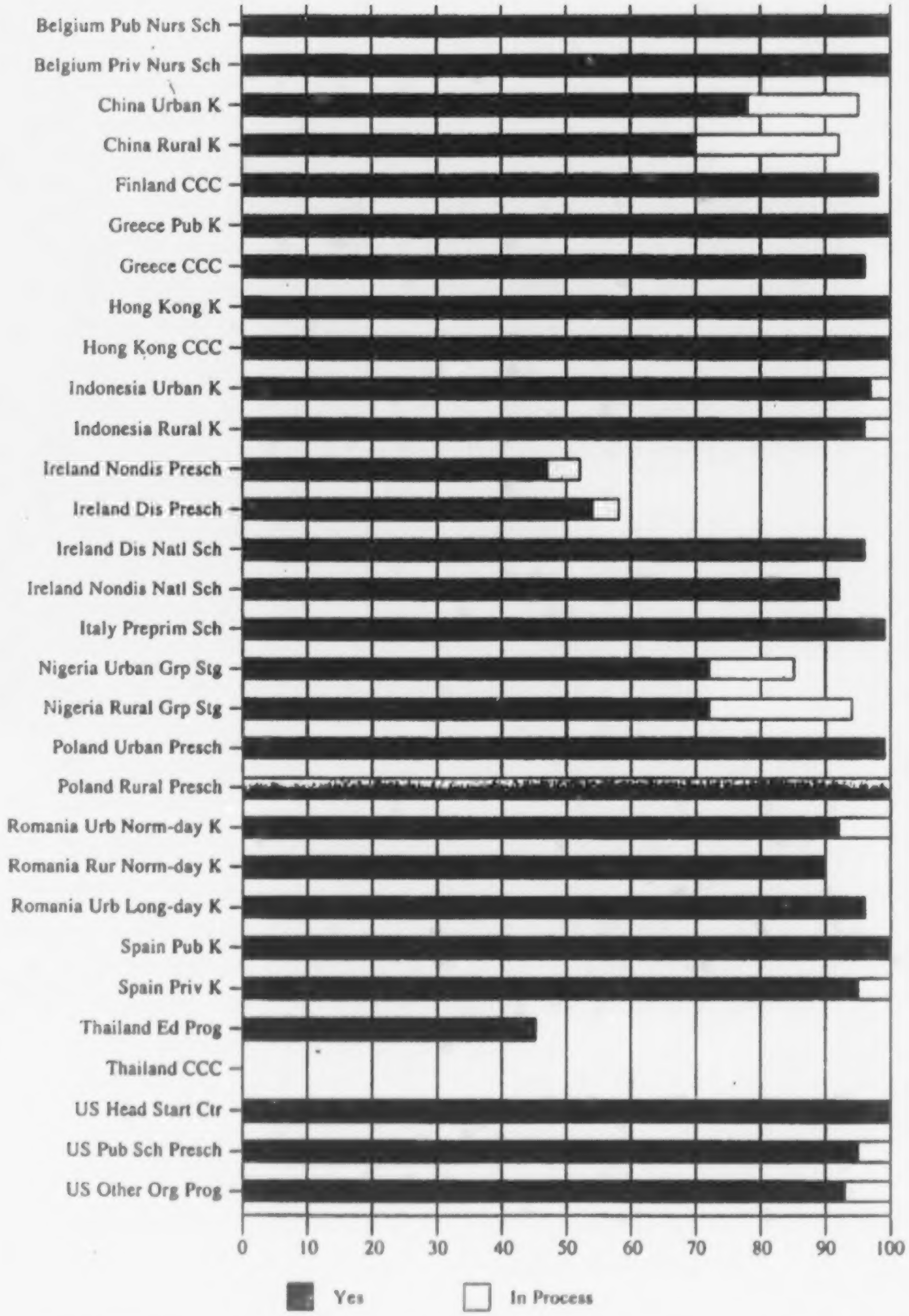


Figure 5.3 Percentage of early childhood settings in different stages of licensing/certification

Table 5.5 Percentage of licensed/certified early childhood settings having that status for different numbers of years

		Number of Years		Amount of Time Licensed/Certified						
Country/Territory	*N*	Median	Range	% Less Than 1 Year	% 1–5 Years	% 6–10 Years	% 11–20 Years	% 21–30 Years	% 31+ Years	NR
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private nursery schools	27	NI	NI	NI	NI	NI	NI	NI	NI	NI
China (PRC, 6 provinces)										
Urban kindergartens	216	1	<1–42	2	79	7	4	1	1	6
Rural kindergartens	191	1	<1–13	14	68	10	1	0	0	7
Finland										
Child care centers	66	16	<1–24	2	8	8	36	2	0	44
Greece (urban)										
Public kindergartens*	49	15	1–43	0	8	16	33	22	5	16
Child care centers	22	11	1–20	0	29	19	52	0	0	0
Hong Kong (SAR)										
Kindergartens	26	11	<1–45	4	20	16	24	20	12	4
Child care centers	25	9	2–32	0	26	26	22	22	4	8
Indonesia (Java)										
Urban kindergartens	39	11	<1–31	3	25	17	36	13	3	3
Rural kindergartens	28	12	1–28	0	11	25	45	8	0	11
Ireland										
Nondisadvantaged preschools	25	7	1–17	0	45	22	22	0	0	11
Disadvantaged preschools	29	14	3–25	0	15	15	30	9	0	31
Disadvantaged national schools	27	20	13–31	0	0	0	24	14	5	57
Nondisadvantaged national schools	28	21	10–53	0	0	5	18	18	10	49
Italy										
Preprimary schools	143	17	1–55	0	8	9	26	13	2	42
Nigeria (3 states)										
Urban group settings	48	3	1–25	0	64	15	3	12	0	6
Rural group settings	19	4	1–12	0	47	23	15	0	0	15
Poland										
Urban preschools	75	12	<1–47	4	13	23	24	12	17	7
Rural preschools	49	14	1–47	0	30	4	26	9	24	7
Romania										
Urban normal-day kindergartens	24	NI	NI	NI	NI	NI	NI	NI	NI	NI
Rural normal-day kindergartens	21	NI	NI	NI	NI	NI	NI	NI	NI	NI
Urban long-day kindergartens	24	NI	NI	NI	NI	NI	NI	NI	NI	NI
Slovenia										
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	9	2–44	0	14	29	14	0	14	29
Child care centers	22	NA	NA	NA	NA	NA	NA	NA	NA	NA
United States (6 sites)										
Head Start centers*	31	26	15–27	0	0	0	39	61	0	0
Public school preschools	24	4	<1–20	5	43	5	10	0	0	37
Other organized programs*	45	17	<1–50	4	15	15	22	25	12	7

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. NA indicates data not applicable. NR indicates no response.

TYPES OF LICENSING/CERTIFICATION AGENCIES

The findings in Table 5.6 (facing page) provide information about the types of agencies that license/certify early childhood settings in different countries. The table contains data for 29 types of settings across 14 countries. Missing are findings for Slovenia and child care centers in Thailand (100% licensing not required).

The first set of 5 columns in the table presents the percentage of settings licensed or certified by different types of agencies/bodies that generally perform this function for early childhood settings. The next set of 4 columns provides information about the percentages of settings that are licensed or certified by a combination of 2 agencies/bodies. As the table indicates, every major combination for which data are presented separately includes the educational department/agency as 1 member of the combination. The final set of columns presents the percentage of settings licensed or certified by other combinations of 2 or 3 agencies; the percentages in this column are generally low.

As Table 5.6 shows, the educational department is clearly the major licensing/certification agency for early childhood settings in many countries, either alone (as seen in Column 1 in the table) or as 1 member of a combination (as seen in the set of 4 columns in the middle of the table). In fact, the findings indicate that the educational department is the sole licenser/certifier of a majority of settings of 16 different types across 10 countries. The educational department licenses/certifies 100% of the settings of 12 different types across 8 countries. These types of early childhood settings include

• Belgium	Public and private nursery schools
• China	Urban and rural kindergartens
• Greece	Public kindergartens
• Hong Kong	Kindergartens
• Ireland	Disadvantaged and nondisadvantaged national schools
• Italy	Preprimary schools
• Spain	Public and private kindergartens
• Thailand	Educational programs

In addition, the educational department is the sole licenser/certifier of 70% or more of the types of settings in Indonesia and Nigeria.

The findings for licensing/certification by the other single agencies listed in the table can be summarized as follows:

- Health department licenses/certifies 100% of the child care centers in Greece.
- Social welfare/social services department licenses/certifies 100% of the child care centers in Hong Kong, 98% of the child care centers in Finland, and a majority of the settings of 2 types in the United States (public school preschools = 68%; other organized programs = 52%).

The findings for combinations of 2 licensing/certifying agencies of which the educational department is a member include two notable items.

- Romania—100% of each of the 3 types of settings are licensed by both the educational department and the health department.
- Poland—28% of urban preschools and 38% of rural preschools are licensed/certified by both the educational department and an other agency.

Table 5.6 Percentage of licensed/certified early childhood settings according to types of licensing agencies

Country/Territory	*N*	(1) Educational Department	(2) Health Department	(3) Social Welfare/ Social Services Department	(4) Private Organization/ Foundation	(5) Other Agency	1&2	1&3	1&4	1&5	Other Double Combinations	Triple Combinations	NI
Belgium (Fr.—Liège Province, Brussels)													
Public nursery schools	28	100											
Private nursery schools	27	100											
China (PRC, 6 provinces)													
Urban kindergartens	216	100											
Rural kindergartens	191	100											
Finland													
Child care centers	66			98							2		
Greece (urban)													
Public kindergartens[a]	49	100											
Child care centers	22		100										
Hong Kong (SAR)													
Kindergartens	26	100											
Child care centers	25			100									
Indonesia (Java)													
Urban kindergartens	39	71		3				14	6	3		3	
Rural kindergartens	28	73				4			12	8			3
Ireland													
Nondisadvantaged preschools	25		11		33	33					11		12
Disadvantaged preschools	29	23	31		15		15				8		8
Disadvantaged national schools	27	100											
Nondisadvantaged national schools	28	100											
Italy													
Preprimary schools	143	100											
Nigeria (3 states)													
Urban group settings	48	79		3		6	3						6
Rural group settings	19	85			15								
Poland													
Urban preschools	75	48				20				28		4	
Rural preschools	49	30				19				38	2	11	
Romania													
Urban normal-day kindergartens	24						100						
Rural normal-day kindergartens	21						100						
Urban long-day kindergartens	24						100						
Slovenia													
Kindergartens*	44												100
Spain (Catalonia)													
Public kindergartens	29	100											
Private kindergartens	25	100											
Thailand													
Educational programs	31	100											
Child care centers[a]	22												
United States (6 sites)													
Head Start centers*	31		9	39		26		9			13	4	
Public school preschools	24	11		68			5	16					
Other organized programs*	45	7		52		15					15	4	7

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. [a]Data not applicable.

In summary, the findings in Table 5.6 show that across participating countries, the educational department is the primary licensing/certification agency of early childhood settings, either singly or in combination with another agency.

REVIEW OF LICENSED/CERTIFIED SETTINGS

Once a setting is licensed is there a review of the licensing, and if so, how often does this review occur? These are the findings presented in Table 5.7 (facing page). Data for 26 different types of settings are included in the table, which is divided into 2 sections. The third column presents, by type of setting, the percentage of directors who indicated that the licensing for their setting is reviewed. The fifth column in the table presents the median frequency of this review. These latter findings are included in the table only if 10 or more directors indicated that their settings are reviewed.

As Table 5.7 indicates, 100% of the directors in 5 types of settings across 3 countries reported that their licensing is reviewed:

• Belgium	Public and private nursery schools
• Hong Kong	Kindergartens and child care centers
• United States	Head Start centers

In addition, 50% to 99% of the directors in 11 other types of settings across 7 countries reported a review of licensing: settings in the nations of China, Indonesia, Ireland, Nigeria, Romania, Thailand, and the United States.

The final 2 columns of Table 5.7 present findings for 15 different types of settings across 8 countries. In 12 of the 15 types of settings, the median frequency of review is 12 months. The median frequencies for the remaining 3 types of settings range from 14 months to 24 months.

In general, the findings in Table 5.7 indicate that a majority of directors in most countries noted that the licensing/certification of their settings is reviewed and that this review generally occurs every 12 months.

SUPERVISION OF LICENSED/CERTIFIED SETTINGS

The final two related follow-up questions about licensing and certification were *Is there any supervision of the program by the licensing body? If so, how often does this supervision occur?* Table 5.8 (on p. 158) includes the directors' responses to these questions and contains data for 26 types of settings across 12 countries.

As in Table 5.7, the third column of Table 5.8 presents, by type of setting, the percentage of directors who indicated that their setting is supervised by the licensing/certification agency. The final column in the table lists the average frequency of these supervisions; these findings are included only if at least 10 settings are supervised.

The findings in Table 5.8 reveal that a majority of directors in 25 of the 26 types of settings indicated that their early childhood settings are supervised by the licensing/certification agency. In 8 types of settings, directors noted that 100% of the settings are supervised:

• Belgium	Public and private nursery schools
• Greece	Public kindergartens
• Hong Kong	Kindergartens and child care centers
• Romania	Urban normal-day kindergartens and urban long-day kindergartens
• United States	Head Start centers

Table 5.7 Percentage of early childhood settings with licensing reviewed and frequency of review

					How Often (months)	
Country/Territory	*N*	*N* Reporting Finding	% Licensing Reviewed	New *N* Licensing Reviewed	Median	Range
Belgium (Fr.—Liège Province, Brussels)						
Public nursery schools	28	28	100	28	12	12–12
Private nursery schools	27	27	100	27	12	12–12
China (PRC, 6 provinces)						
Urban kindergartens	216	165	54	89	12	2–98
Rural kindergartens	191	131	46	60	12	3–98
Finland						
Child care centers	66	66	8	5	NI	NI
Greece (urban)						
Public kindergartens*	49	37	0	0	NI	NI
Child care centers	22	21	5	1	NI	NI
Hong Kong (SAR)						
Kindergartens	26	25	100	25	12	12–12
Child care centers	25	25	100	25	12	12–12
Indonesia (Java)						
Urban kindergartens	39	36	75	27	12	1–77
Rural kindergartens	28	26	27	7	NI	NI
Ireland						
Nondisadvantaged preschools	25	9	67	6	NI	NI
Disadvantaged preschools	29	13	46	6	NI	NI
Disadvantaged national schools	27	21	57	12	14	3–60
Nondisadvantaged national schools	28	9	41	9	NI	NI
Italy						
Preprimary schools	143	NI	NI	NI	NI	NI
Nigeria (3 states)						
Urban group settings	48	33	82	27	12	5–29
Rural group settings	19	13	46	6	NI	NI
Poland						
Urban preschools	75	75	4	3	NI	NI
Rural preschools	49	46	2	1	NI	NI
Romania						
Urban normal-day kindergartens	24	22	91	20	12	3–12
Rural normal-day kindergartens	21	18	72	13	12	12–12
Urban long-day kindergartens	24	23	87	20	12	12–12
Slovenia						
Kindergartens*	44	NI	NI	NI	NI	NI
Spain (Catalonia)						
Public kindergartens	29	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI
Thailand						
Educational programs	31	14	64	9	NI	NI
Child care centers[a]	22					
United States (6 sites)						
Head Start centers*	31	23	100	23	24	12–24
Public school preschools	24	19	95	18	12	6–36
Other organized programs*	45	27	96	26	24	12–36

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. [a]Data not applicable.

The frequency of supervision is presented in the final column of Table 5.8 and contains data from 22 types of settings in 11 countries. In 50% of the settings, the directors noted that supervision occurs every 1–6 months. For the remaining 50% of the settings, the directors' responses indicated that such supervision occurs every 12–14 months.

Table 5.8 Percentage of early childhood settings with licensing supervised and frequency of supervision

Country/Territory	*N*	*N* Reporting Finding	% Licensing Supervised	New *N* Licensing Supervised	How Often (months) Median
Belgium (Fr.—Liège Province, Brussels)					
Public nursery schools	28	28	100	28	12
Private nursery schools	27	27	100	27	12
China (PRC, 6 provinces)					
Urban kindergartens	216	165	95	157	2
Rural kindergartens	191	131	94	123	2
Finland					
Child care centers	66	59	86	51	12
Greece (urban)					
Public kindergartens*	49	37	100	37	6
Child care centers	22	21	95	20	6
Hong Kong (SAR)					
Kindergartens	26	25	100	25	3
Child care centers	25	25	100	25	4
Indonesia (Java)					
Urban kindergartens	39	36	89	32	2
Rural kindergartens	28	26	73	19	1
Ireland					
Nondisadvantaged preschools	25	9	56	5	NI
Disadvantaged preschools	29	3	38	5	NI
Disadvantaged national schools	27	21	81	17	14
Nondisadvantaged national schools	28	22	68	15	14
Italy					
Preprimary schools	143	NI	NI	NI	NI
Nigeria (3 states)					
Urban group settings	48	33	76	25	12
Rural group settings	19	13	77	10	12
Poland					
Urban preschools	75	75	89	67	NI
Rural preschools	49	46	87	40	NI
Romania					
Urban normal-day kindergartens	24	22	100	22	3
Rural normal-day kindergartens	21	18	94	17	6
Urban long-day kindergartens	24	23	100	23	1
Slovenia					
Kindergartens*	44	NI	NI	NI	NI
Spain (Catalonia)					
Public kindergartens	29	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI
Thailand					
Educational programs	31	14	86	12	12
Child care centers[a]	22				
United States (6 sites)					
Head Start centers*	31	23	100	23	12
Public school preschools	24	19	63	12	12
Other organized programs*	45	27	63	17	12

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. [a] Data not applicable.

CRITERIA FOR ADMISSION TO EARLY CHILDHOOD SETTINGS

In this section we look at the criteria for admission identified by respondents in early childhood settings selected for this study. These admissions criteria determine the characteristics of the children who are enrolled in the center and may be related to other findings in the study. For example, if settings in a particular nation only admit children who score above a specific cutoff on developmental skills tests, the range of scores for these children on the developmental skills measures included in this study may be affected by this admissions policy. (The child measures findings will be reported in a future monograph.) Or, if high priority is given to children with special needs and settings in a specific country admit a significant percentage of these children, this admissions policy could affect the types of activities the children engage in while at the setting. (A future monograph will document children's activities as well as other data collected through direct observation.)

The Provider Survey item regarding admissions criteria listed seven family/child variables and asked respondents to indicate whether or not each one is used as a criterion for admitting a child to the setting. The following variables were listed:

(1) Child's ability to care for self (toileting, dressing)
(2) Child's ability to speak/understand dominant language of the setting
(3) Child's age
(4) Child's score on readiness test
(5) Child's scores on developmental skills test[s] (cognitive, language, social)
(6) Special needs of the child
(7) Household income

Table 5.9 on the following page presents the criteria for admission identified by respondents in 50% or more of the settings in 14 of the 15 countries. (A complete set of the findings from which Table 5.9 data are drawn can be found in Table C.1 in Appendix C.) Of the seven variables included on the list, only one was named by a majority of respondents in *all* types of settings across the 14 countries reporting findings—age of child. In addition, in 23 of the 30 types of settings reporting findings, 90% or more of the settings use this criterion. Thus, the findings in Table 5.9 suggest that in all countries in the study nearly all settings of all types use age of child as a criterion for admission.

For nearly half of the types of settings (i.e., 13 of 30) with findings in Table 5.9, age of child was the *only* criterion for admission identified by the majority of respondents. A majority of respondents in 14 other types of settings identified two criteria used for admission, age of child plus one other criterion. In only 3 types of settings, 1 type in Ireland and 2 in the United States, did the majority of respondents identify more than two criteria for admission.

The two admissions criteria other than age most frequently identified by respondents were child's ability to care for self and special needs of the child. A majority of respondents in 9 types of settings identified the child's ability to care for self as a criteria for admission. The 7 countries in which these 9 types of settings are located include ones in Africa, Asia, Europe (western), and North America, suggesting that this criterion is used in some types of settings in countries throughout the world. In addition, this criterion seems to be a general one used by different types of early childhood settings (e.g., Hong Kong kindergartens, child care centers in Thailand).

Table 5.9 Percentage of settings (≥ 50%) using various admissions criteria

		Criteria for Selection of Children						
Country/Territory	*N*	Age	Cares for Self	Special Needs	Income	Speaks/ Understands Dominant Language	Develop-mental Skills Tests	Readiness Tests
Belgium (Fr.—Liège Province, Brussels)								
Public nursery schools	28	100			NA			NA
Private nursery schools	27	100			NA			NA
China (PRC, 6 provinces)								
Urban kindergartens	216	89					NA	
Rural kindergartens	191	93	53				NA	
Finland								
Child care centers	66	95		87				
Greece (urban)								
Public kindergartens*	49	100						
Child care centers	22	91	57					
Hong Kong (SAR)								
Kindergartens	26	100	58					
Child care centers	25	100		54				
Indonesia (Java)								
Urban kindergartens	39	97				60		
Rural kindergartens	28	85						
Ireland								
Nondisadvantaged preschools	25	100	52					
Disadvantaged preschools	29	100	54	52				
Disadvantaged national schools	27	81						
Nondisadvantaged national schools	28	96	50					
Italy								
Preprimary schools	143	100			NA			
Nigeria (3 states)								
Urban group settings	48	86						
Rural group settings	19	78	50					
Poland								
Urban preschools	75	94						
Rural preschools	49	94						
Romania								
Urban normal-day kindergartens	24	100		100				
Rural normal-day kindergartens	21	100		95				
Urban long-day kindergartens	24	100		88				
Slovenia								
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)								
Public kindergartens	29	73						
Private kindergartens	25	77						
Thailand								
Educational programs	31	100						
Child care centers	22	96	59					
United States (6 sites)								
Head Start centers*	31	100		91	78			
Public school preschools	24	100	57	67	68			
Other organized programs*	45	100			50			

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NA = Not asked. NI indicates no information available. Blank indicates percentage lower than 50%.

Special needs of the child as a criterion for admission was named by the majority of respondents in 8 different types of settings in 5 countries (Finland, Hong Kong, Ireland, Romania, United States). As with the child's ability to care for self, special needs of the child was identified as an admissions criterion by 50% or more of the respondents in settings in several geographical areas (i.e., eastern and western Europe, Asia, and North America). Also, like the child's ability to care for self, special needs of the child was named by respondents in settings with names that suggest a focus either on care or on education (Finland's child care centers, Romania's urban normal-day kindergartens). This would seem to indicate that special needs of the child is a somewhat general criterion for admission.

Two other criteria for admission were each named by a majority of respondents in a single country. Household income was identified by 50% or more of the respondents in all 3 types of group settings in the United States (i.e., Head Start centers = 78%, public school preschools = 68%, other organized programs = 50%). Finally, 60% of the respondents in Indonesia's urban kindergartens named child speaks/understands dominant language of the setting as a criterion of admission.

There are three sets of findings from Table C.1 in Appendix C that will be mentioned here:

- In most countries other than the United States, household income was named as a criterion for admission by only a very small percentage of respondents. In fact, in 7 countries no respondents in any type of setting named this characteristic as an admissions criterion. While various types of settings in different countries may give priority to children from low-income families, this family characteristic is rarely used as a criterion for admission outside of the United States.
- Child's score on a developmental skills test as a criterion of admission was cited by only a small percentage of respondents in most countries. Although this criterion was named by *some* respondents in most countries, for 22 of the 28 types of settings the figure reported is lower than 20%. A similar situation is seen for the admissions criterion of child's score on a readiness test.
- As indicated by the percentages in the final column, many different types of settings have additional admissions criteria. While some of these additional criteria may be related to the type of sponsoring agency/organization (e.g., religion, specific employer), others may be related to household characteristics (e.g., address of home).

MAINTENANCE OF RECORDS

To obtain information about the maintenance and updating of records at different types of early childhood settings across the participating countries, we included on the Provider Survey questionnaire a listing of six different types of information that could be included in such records. Each respondent was asked to indicate whether or not each type of information is included. An alphabetical listing of the six types of information is given below.

(1) Attendance information
(2) Background information
(3) Behavioral observations
(4) Developmental tests
(5) Evaluation information
(6) Medical information

TYPES OF RECORDS MAINTAINED

Table 5.10 on the facing page presents the kinds of records identified by respondents as maintained and updated in 50% or more of each type of setting across the 15 participating countries. (A complete set of the findings from which Table 5.10 data are drawn can be found in Table C.2 in Appendix C.) The table presents the findings in an ordered way, beginning at the left with the type of record maintained by 50% or more of the *largest* number of different types of settings and ending at the right with the type of record maintained by 50% or more of the *smallest* number of different types of settings. Thus, the second column of Table 5.10 shows that records of background information are maintained by all of the 29 different types of settings reporting data for this variable, while records of behavior observations are maintained by 6 of the 16 different types of settings reporting findings for this variable.

As Table 5.10 indicates, background information and attendance records are maintained by 50% or more of the largest numbers of different types of settings (29 of 29 different types of settings and 28 of 29 different types of settings, respectively). For both of these categories of records, large percentages of every type of setting indicated that they maintain this specific type of record, with 25 of 29 percentages being 80% or higher for background information records and all 28 percentages being 80% or higher for attendance records.

Although 29 types of settings also reported findings for medical records and for evaluations, 50% or more of a smaller number of these types of settings maintain such records (21 of 29 different types of settings and 19 of 29 different types of settings, respectively). In addition, as Table 5.10 shows, the percentages of different types of settings maintaining these kinds of records show more variability, with some percentages as high as 100% in each category and other percentages as low as 50% or 60%.

A final interesting note on the findings presented in Table 5.10 relates to the category of behavior observations. The findings for this variable were reported by 16 different types of settings, and of those 16, only 6 have percentages greater than or equal to 50%. However, in every one of the 6 cases, the percentages reported were 90% or larger, suggesting that when this kind of record *is* maintained by early childhood settings in a country, every setting or nearly every setting does it.

MAINTENANCE OF RECORDS BY TYPE OF SETTING

It is also useful to examine the maintenance of various kinds of records by a majority of the different types of early childhood settings across the countries participating in the study. Of the 29 types of settings reporting findings for this set of variables, 50% or more of 4 different types in 3 countries indicated that they maintain all 6 kinds of records:

• Romania	Urban long-day kindergartens
• Spain	Public and private kindergartens
• Thailand	Educational programs

At the other extreme, a majority of public kindergartens in Greece maintain only 1 kind of record (background information), while a majority of the rural kindergartens in China maintain just 2 kinds of records (background information and attendance).

Table 5.10 Percentage of settings (≥ 50%) maintaining various types of records

Country/Territory	*N*	Background Information	Attendance Records	Medical Records	Evaluations	Developmental Tests	Behavior Observations
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28	75	96	54	61	68	NI
Private nursery schools	27	93	86	57			NI
China (PRC, 6 provinces)							
Urban kindergartens	216	80	97	83		81	NI
Rural kindergartens	191	65	87				NI
Finland							
Child care centers	66	98	98	62		51	NI
Greece (urban)							
Public kindergartens*	49	88					
Child care centers	22	91	83	78			
Hong Kong (SAR)							
Kindergartens	26	88	92		88		
Child care centers	25	96	100	100	71	54	
Indonesia (Java)							
Urban kindergartens	39	100	100	86	92	69	NI
Rural kindergartens	28	85	89	74	77	56	NI
Ireland							
Nondisadvantaged preschools	25	94	100	65			
Disadvantaged preschools	29	58	100	58			
Disadvantaged national schools	27	95	100		86	71	
Nondisadvantaged national schools	28	89	100	50	94	89	
Italy							
Preprimary schools	143	77	99	86	80		NI
Nigeria (3 states)							
Urban group settings	48	81	97		85	55	NI
Rural group settings	19	82	94		71		NI
Poland							
Urban preschools	75	86	100	90		51	
Rural preschools	49	83	100	94			
Romania							
Urban normal-day kindergartens	24	100	96		100		100
Rural normal-day kindergartens	21	100	100		100		95
Urban long-day kindergartens	24	100	100	100	100	54	92
Slovenia							
Kindergartens*	44	NI	NI	NI	NI	NI	NI
Spain (Catalonia)							
Public kindergartens	29	100	95	91	100	86	100
Private kindergartens	25	100	91	81	100	67	100
Thailand							
Educational programs	31	86	100	93	93	93	93
Child care centers	22	NI	NI	NI	NI	NI	NI
United States (6 sites)							
Head Start centers*	31	100	100	100	100	100	NI
Public school preschools	24	100	100	100	100	100	NI
Other organized programs*	45	100	100	100	100	NI	NI

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. Blank indicates percentage lower than 50%.

CHARGING FEES TO FAMILIES WITH CHILDREN ENROLLED IN EARLY CHILDHOOD PROGRAMS

One management function of early childhood care or education settings is the determination of income sources. One source of income may be parent fees. In some countries fees are a major source of income for certain types of early childhood settings, while in other countries they may provide little or none of the funds used to operate some types of settings.

The Provider Survey questionnaire included a general item asking the sources of funding for the setting, including parent fees. If the setting director indicated that parent fees were a source of funding, three follow-up questions were asked:

(1) *Do you charge different fees for any of the following reasons?* (A list of 7 reasons followed this question.)

(2) *How much is the parent fee?*

(3) *If you determine your fees with an income-based sliding-fee scale, please indicate below the range of fees you charge.*

Only the findings for the parent-fee portion of the general question and to follow-up question (1) are included in this section. Directors in only 3 countries provided responses to follow-up questions (2) and (3), and the decision was made to not present this limited amount of information.

The Provider Survey questionnaire also included the following question, related to the charging of fees for things other than tuition: *Do the parents in your setting pay any additional charges (fees), such as gym fees, music fees, or fees for uniforms or books?* The responses to this question are also presented in this section.

BASIC INFORMATION ABOUT THE CHARGING OF FEES

Table 5.11 on the facing page presents, by type of setting, the percentage of settings that charge fees to families whose children attend the setting. Findings are included for 28 different types of settings; in 18 of these 28 types, 80% or more of the directors indicated that such fees are charged. In the following 6 countries, 80% or more of the settings of *all* types charge fees:

• China	Urban and rural kindergartens
• Finland	Child care centers
• Greece	Public kindergartens and child care centers
• Hong Kong	Kindergartens and child care centers
• Nigeria	Urban and rural group settings
• Poland	Urban and rural preschools

In addition, in 6 countries some but not all types of settings reported percentages in this range (i.e., 80% or higher).

• Indonesia	Urban kindergartens
• Ireland	Disadvantaged and nondisadvantaged preschools
• Romania	Urban long-day kindergartens
• Spain	Private kindergartens
• Thailand	Child care centers
• United States	Other organized programs

Table 5.11 Percentage of early childhood settings charging fees to families

Country/Territory	*N*	*N* Reporting Finding	% Yes	*N* Charging Fees
Belgium (Fr.—Liège Province, Brussels)				
Public nursery schools	28	28	0	0
Private nursery schools	27	27	0	0
China (PRC, 6 provinces)				
Urban kindergartens	216	216	91	196
Rural kindergartens	191	191	93	177
Finland				
Child care centers	66	60	98	59
Greece (urban)				
Public kindergartens*	49	37	100	37
Child care centers	22	22	100	22
Hong Kong (SAR)				
Kindergartens	26	24	100	24
Child care centers	25	23	100	23
Indonesia (Java)				
Urban kindergartens	39	36	97	35
Rural kindergartens	28	21	71	15
Ireland				
Nondisadvantaged preschools	25	23	96	22
Disadvantaged preschools	29	26	81	21
Disadvantaged national schools	27	23	4	1
Nondisadvantaged national schools	28	23	5	1
Italy				
Preprimary schools	143	122	7	9
Nigeria (3 states)				
Urban group settings	48	45	98	44
Rural group settings	19	16	100	16
Poland				
Urban preschools	75	75	90	70
Rural preschools	49	46	91	42
Romania				
Urban normal-day kindergartens	24	2	NI	NI
Rural normal-day kindergartens	21	3	NI	NI
Urban long-day kindergartens	24	24	100	24
Slovenia				
Kindergartens*	44	NI	NI	NI
Spain (Catalonia)				
Public kindergartens	29	26	0	0
Private kindergartens	25	22	100	22
Thailand				
Educational programs	31	31	68	21
Child care centers	22	22	86	19
United States (6 sites)				
Head Start centers*	31	16	0	0
Public school preschools	24	13	46	6
Other organized programs*	45	27	100	27

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Table 5.11 also shows that in 7 different types of settings, 20% or less of the directors responded that their settings charge fees to participating families.

- Belgium Public nursery schools—0%, private nursery schools—0%
- Ireland Disadvantaged national schools—4%, nondisadvantaged national schools—5%
- Italy Preprimary schools—7%
- Spain Public kindergartens—0%
- United States Head Start centers—0%

The fact that 18 of the 28 types of settings have percentages of 80% or larger and another 7 types of settings have percentages of 20% or smaller suggests that charging fees to parents is a general management decision that applies to all (or nearly all) settings of a specific type.

Finally, for those countries reporting findings, Table 5.11 shows that the percentage of settings charging parent fees is similar across the various types of settings within most countries. However, there are three exceptions:

- Ireland 2 preschool settings—81%, 96%; 2 national school settings—4%, 5%
- Spain Public kindergartens—0%, private kindergartens—100%
- United States Head Start centers—0%, public school preschools—46%, other organized programs—100%

VARIATION IN FEES FOR DIFFERENT REASONS

Table 5.12 on the facing page presents a summary of the reasons why early childhood settings vary the amount of fees they charge to families. The overall picture presented by the findings is one of little variation in fees by a majority of *any* type of setting for *any* reason. (Table C.3 in Appendix C contains the complete set of findings for this variable.) In both Table 5.12 and Table C.3, the findings are presented in an ordered manner. That is, the second column presents the findings for the reason *2 or more children* and shows that a majority of 4 types of settings (out of a total of 19 reporting findings) vary their fees for this reason. The final 2 columns in the table (i.e., *not toilet trained* and *special needs*) contain no percentages, indicating that there are no types of settings in which a majority vary fees for these reasons. The columns in the middle of the table show reasons for which a majority of directors in 1 or 2 different types of settings noted that they vary their fees.

Directors in 50% or more of the child care centers in Finland reported that they vary fees for three different reasons (2 or more children, family income, age of child). The only other type of setting in which a majority of settings vary fees for more than one reason is urban long-day kindergartens in Romania. The two reasons for fee variation in this type of setting are 2 or more children and family income. The remaining four entries in the table come from types of settings in 4 different countries (Hong Kong, Ireland, Spain, United States).

The complete set of findings in Table C.3 in Appendix C contains mainly percentages that are 20% or lower. This suggests that varying fees for different reasons might be a setting-specific decision rather than a general management policy that applies to all settings of a particular type.

Table 5.12 Percentage of early childhood settings (≥ 50%) varying fees for different reasons

Country/Territory	*N*	*N* Charging Fees	Reasons: 2 or More Children	Family Income	Mother Works at Setting	Age of Child	Not Toilet Trained	Special Needs
Belgium (Fr.—Liège Province, Brussels)								
Public nursery schools	28	0	NA	NA	NA	NA	NA	NA
Private nursery schools	27	0	NA	NA	NA	NA	NA	NA
China (PRC, 6 provinces)								
Urban kindergartens	216	196						
Rural kindergartens	191	177						
Finland								
Child care centers	66	59	100	88		95		
Greece (urban)								
Public kindergartens*	49	37	NI	NI	NI	NI	NI	NI
Child care centers	22	22						
Hong Kong (SAR)								
Kindergartens	26	24			57			
Child care centers	25	23						
Indonesia (Java)								
Urban kindergartens	39	35						
Rural kindergartens	28	15						
Ireland								
Nondisadvantaged preschools	25	22	73					
Disadvantaged preschools	29	21						
Disadvantaged national schools	27	1	NA	NA	NA	NA	NA	NA
Nondisadvantaged national schools	28	1	NA	NA	NA	NA	NA	NA
Italy								
Preprimary schools	143	9	NA	NA	NA	NA	NA	NA
Nigeria (3 states)								
Urban group settings	48	44						
Rural group settings	19	16						
Poland								
Urban preschools	75	70						
Rural preschools	49	42						
Romania								
Urban normal-day kindergartens	24	NI	NI	NI	NI	NI	NI	NI
Rural normal-day kindergartens	21	NI	NI	NI	NI	NI	NI	NI
Urban long-day kindergartens	24	24	100	100				
Slovenia								
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)								
Public kindergartens	29	0	NA	NA	NA	NA	NA	NA
Private kindergartens	25	22			55			
Thailand								
Educational programs	31	21						
Child care centers	22	19						
United States (6 sites)								
Head Start centers*	31	0	NA	NA	NA	NA	NA	NA
Public school preschools	24	6	NA	NA	NA	NA	NA	NA
Other organized programs*	45	27	81					

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NA indicates data not applicable. NI indicates no information available. Blank indicates percentage lower than 50%.

CHARGING OF ADDITIONAL FEES

The final set of findings in this section, presented below in Table 5.13, shows the percentage, by type of setting, of settings that charge additional fees for such things as books or special kinds of instruction (e.g., music). The table contains findings from 26 types of settings and shows that not only do the percentages of settings charging such fees vary from nation to nation, they also sometimes vary from 1 type of setting to another within a nation.

Two examples of this can be seen in the percentages for Ireland and for Romania. In Ireland, 14% of the directors in nondisadvantaged preschools reported charging additional fees, while 77% of the directors in nondisadvantaged national schools noted that they charge these fees. The percentages for the other 2 types of settings in Ireland fall between these two figures. In Romania, the percentage of directors reporting the charging of additional fees ranges from 0% in rural normal-day kindergartens to 71% in urban long-day kindergartens.

On the other hand, as the table shows, in many countries the percentages of settings charging additional fees are similar for the different types of settings within a country. One example of this is Poland, in which the percentages for the 2 types of preschools are 97% and 100%. Another example is Spain, in which 57% of the directors in both public and private kindergartens noted that their settings charge additional fees.

Table 5.13 Percentage of early childhood settings charging additional fees

Country/Territory	*N*	%	Country/Territory	*N*	%
Belgium (Fr.—Liège Province, Brussels)			**Nigeria (3 states)**		
Public nursery schools	28	NI	Urban group settings	48	41
Private nursery schools	27	NI	Rural group settings	19	35
China (PRC, 6 provinces)			**Poland**		
Urban kindergartens	216	NI	Urban preschools	75	97
Rural kindergartens	191	NI	Rural preschools	49	100
Finland			**Romania**		
Child care centers	66	28	Urban normal-day kindergartens	24	38
Greece (urban)			Rural normal-day kindergartens	21	0
Public kindergartens*	49	25	Urban long-day kindergartens	24	71
Child care centers	22	18	**Slovenia**		
Hong Kong (SAR)			Kindergartens*	44	NI
Kindergartens	26	27	**Spain (Catalonia)**		
Child care centers	25	5	Public kindergartens	29	57
Indonesia (Java)			Private kindergartens	25	57
Urban kindergartens	39	73	**Thailand**		
Rural kindergartens	28	64	Educational programs	31	65
Ireland			Child care centers	22	36
Nondisadvantaged preschools	25	14	**United States (6 sites)**		
Disadvantaged preschools	29	17	Head Start centers*	31	0
Disadvantaged national schools	27	70	Public school preschools	24	0
Nondisadvantaged national schools	28	77	Other organized programs*	45	9
Italy					
Preprimary schools	143	7			

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

STAFFING PROFILES FOR DIFFERENT TYPES OF SETTINGS

The Provider Survey questionnaire included an item listing many different categories of staff and asking how many of each are employed in the setting. In order to present the findings across the various types of settings and the various countries in a consistent way, these personnel have been grouped into the following 4 general categories:

Category	*Types of Personnel*
Administrators	Director,[a] assistant director, principal, assistant principal
Adults in the classroom	Lead teacher, head teacher, instructor, teacher/co-teacher, assistant teacher, teacher aide/assistant, child care worker, day care worker, day care assistant, substitute
Auxiliary staff	Social worker, nurse
Support staff	Bookkeeper/accountant, secretary/clerk, cook/cook aide, janitor/maintenance person, driver/driver aide

The staffing findings are presented by country and with a separate section for each type of setting. The raw data were used to identify groups of settings having similar staffing patterns (e.g., small public nursery schools, large public nursery schools); the table for each country presents a typical staffing pattern for these groups. The text provides detailed information about the specific types of personnel within each general category.

BELGIUM (FR.—LIÈGE PROVINCE, BRUSSELS)

Public nursery schools

Based on the information provided by the directors of public nursery school settings in Belgium, there seem to be small settings and large ones, distinguished mainly by the total number of adults working in the classrooms in each setting. There are generally 2–5 classroom adults per small setting; 90% of these adults are teachers and the remainder are aides or assistants. In the larger settings there are generally 11–14 classroom adults, consisting of approximately the same proportions of teachers and aides/assistants as in small settings. Settings of both sizes typically employ a single administrator, rarely have auxiliary staff (e.g., nurse, social worker), and sometimes have 1 or 2 support staff (e.g., secretary/clerk, maintenance person). See Table 5.14, below.

Table 5.14 Staffing for a typical setting of each type in Belgium

	Public Nursery Schools Number of Staff		Private Nursery Schools Number of Staff	
Category of Staff	Small	Large	Small	Large
Administrators	1	1	1	1
Adults in the classrooms	2–5	11–14	4–5	8–11
Auxiliary staff	0	0	0	0
Support staff	0–2	0–2	0–1	0–1

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[a] In some settings the teacher is also the director; in these cases the individual was always listed on the survey as a teacher rather than a director. Therefore, some settings may appear to not have a director/administrator.

Private nursery schools

Private nursery schools, similar to public nursery schools, can be divided into small and large settings. In small settings there are typically 4 to 5 adults working in the classrooms within the setting (40% of the settings in the sample), while in the larger settings there are 8 to 11 adults in classrooms (25% of the selected settings). The remainder of the settings included a few employing only 1–2 classroom adults, a few employing 6–7, and one with 19. In general, most of the adults working in the classrooms are teachers (85%–90%); the rest are aides/assistants. In addition to classroom adults, private nursery school settings are usually staffed by a single administrator and sometimes 1 support person.

CHINA (PRC, 6 PROVINCES)

Urban kindergartens

Using the information provided by the directors of urban kindergarten settings in China, most settings fall into 1 of 3 groups: small, medium, or large. (The small number of settings that do not fit into 1 of these groups are extremely large settings, employing as many as 100 adults to work in the classrooms.) Small urban kindergartens typically employ 1 to 2 administrators, have 1 to 10 classroom adults working with children (1–2 adults per room), sometimes have an auxiliary staff person (e.g., nurse), and may have 1 to 4 support personnel (e.g., secretary/clerk, maintenance person, cook). The medium-sized settings differ from the small settings primarily in the number of adults employed to work in classrooms, with these settings typically having 11–20 adults in this role. Medium-sized settings are also likely to have more administrators and more support personnel. Finally, large urban kindergarten settings have 21–30 classroom adults and may have more auxiliary staff persons and more support staff persons than the medium-sized settings. In settings of all 3 sizes, 50% to 65% of classroom adults are teachers (or head teachers); the remainder are identified as child care workers. See Table 5.15, below.

Table 5.15 Staffing for a typical setting of each type in China

	Urban Kindergartens Number of Staff			Rural Kindergartens Number of Staff	
Category of Staff	Small	Medium	Large	Small	Large
Administrators	1–2	2–3	2–3	0–2	1–2
Adults in the classrooms	1–10	11–20	21–30	1–4	5–10
Auxiliary staff	0–1	0–1	1–2	0	0
Support staff	0–4	4–7	5–10	0	0–3

Rural kindergartens

It is not surprising that in China rural kindergarten settings are generally smaller than those in urban areas. Responses from directors of rural kindergarten settings suggest that there are 2 sizes of settings, small and large; the few settings not falling into either group are very large, employing as many as 30 to 40 adults to work in the classrooms. Small rural kindergarten settings may have 1 or 2 administrators and 1 to 4 classroom adults. These settings rarely employ either auxiliary staff or support personnel. Approximately two thirds of adults working in the classrooms are teachers and one third are child care workers. Large rural kindergarten settings typically have 1 or 2 administrators, as many as 3 support personnel (e.g., secretary, maintenance person), and 5 to 10 classroom adults. Approximately 60% of adults in the classrooms are teachers, and 40% are child care workers.

FINLAND

Child care centers

Based on data provided by directors of child care settings in Finland, there are small settings and large settings. The main difference between these two groups is the number of adults working in classrooms: Small settings (50% of the selected settings) typically have 2 to 6 classroom adults, whereas large settings (25% of the settings in the sample) generally have 10 to 14 adults working in the classrooms. The remainder of the settings include a small number with only 1 classroom adult, a few with 9 to 11, and a small number with more than 16. The majority of adults working in classrooms are day care workers or day care assistants (60%), and the rest generally are teachers. Settings of both sizes typically employ 1 or 2 administrators, 1 to 3 auxiliary staff (e.g., nurses), and 1 to 3 support staff (cooks, maintenance persons). See Table 5.16, below.

Table 5.16 Staffing for a typical child care center in Finland

	Child Care Centers Number of Staff	
Category of Staff	Small	Large
Administrators	1–2	1–2
Adults in the classrooms	2–6	10–14
Auxiliary staff	1–3	1–3
Support staff	1–3	1–3

GREECE (URBAN)

Public kindergartens

In Greece, the staffing patterns for public kindergarten settings are very similar from setting to setting. A typical setting employs 1 director (administrator) and 1 support staff, usually a maintenance person. There is generally 1 teacher, suggesting that the typical setting consists of a single classroom. This information is consistent with that of observation data collected in the selected public kindergarten classrooms in Greece. No public kindergarten settings reported employing auxiliary staff. See Table 5.17 on the following page.

Child care centers

Child care centers in Greece generally employ 1 administrator and 1 to 2 classroom adults, indicating that these settings generally have 1 or 2 classrooms of preschool-aged children. The directors' responses designated most of the adults in the classrooms as child care workers, but some were categorized as head teachers. While making observations, data collectors noted that there was either a single

Table 5.17 Staffing for a typical setting of each type in Greece

Category of Staff	Public Kindergartens Number of Staff	Child Care Centers Number of Staff
Administrators	1	1
Adults in the classrooms	1	1–2
Auxiliary staff	0	0
Support staff	1	2–3

adult in the room the entire morning or 1 adult for part of the morning and 2 for the rest of the morning. This essentially confirms the Provider Survey information. While directors' responses indicated that only a very small number of settings hire auxiliary staff, most child care settings have 2–3 support staff, including a cook and a maintenance worker. According to the "Patterns of Operation" findings reported in Chapter 6, 4-year-old children attend Greek child care settings an average of 10 hours a day and thus have both meals and snacks in these settings.

HONG KONG (SAR)

Kindergartens

In general, directors' responses indicated that a typical kindergarten setting in Hong Kong has 1 or 2 administrators and between 5 and 8 teachers. The adults are nearly always lead teachers or teachers. These settings rarely contain auxiliary staff (e.g., nurses), but may have 1 or 2 support staff, often including a secretary/clerk, bookkeeper, and/or driver. The employment of drivers by these settings is consistent with the information presented in an earlier IEA Preprimary Project publication that indicated that many early childhood settings in Hong Kong provide transportation services for children enrolled (Ojala & Opper, 1994). See Table 5.18, below.

Table 5.18 Staffing for a typical setting of each type in Hong Kong

Category of Staff	Kindergartens Number of Staff	Child Care Centers Number of Staff
Administrators	1–2	1–3
Adults in the classrooms	5–8	6–8
Auxiliary staff	0	0
Support staff	1–2	1–3

Child care centers

As Table 5.18 shows, the staffing profile for child care settings in Hong Kong is similar to that for kindergarten settings. A typical child care setting employs 1 to 3 administrative staff and 1 to 3 support staff, including in most cases a cook and a secretary/clerk. As noted in the "Patterns of Operation" findings section in Chapter 6, child care settings in Hong Kong provide full-day services, thus the employment of cooks is not surprising. There are 6 to 8 child care workers across classrooms in a typical setting, and a few settings also employ a lead teacher. Like the kindergarten settings described above, child care settings rarely employ auxiliary staff (e.g., social workers, nurses).

INDONESIA (JAVA)

Urban kindergartens

In Indonesia, responses from urban kindergarten directors indicated that the typical setting employs 1 or 2 administrators and 2–8 classroom adults. A small proportion of settings (15% of those selected for the study) employ more classroom adults (i.e., 9 to 15). Of the total number of adults in a setting, approximately 80% are lead teachers; most of the remainder are day care workers. Urban kindergarten settings in Indonesia often have 1 or 2 support personnel (e.g., bookkeeper, maintenance worker) but rarely employ auxiliary personnel (e.g., nurse). See Table 5.19, below.

Table 5.19 Staffing for a typical setting of each type in Indonesia

Category of Staff	Urban Kindergartens Number of Staff	Rural Kindergartens Number of Staff
Administrators	1–2	0–1
Adults in the classrooms	2–8	1–3
Auxiliary staff	0	0
Support staff	0–2	0

Rural kindergartens

As Table 5.19 indicates, rural kindergarten settings in Indonesia generally have fewer staff members than urban kindergarten settings. Approximately 70% of rural kindergartens employ an administrator, but in a small number of settings the administrator also seems to serve as a lead teacher in a classroom. The typical rural kindergarten setting employs 1 to 3 adults to work in the classrooms; approximately 60% of these are lead teachers or teachers, and most of the others are either aides or day care workers. No director in a rural kindergarten setting participating in the study reported employing an auxiliary staff person (e.g., nurse), but a few noted that their staff includes a secretary or bookkeeper (i.e., support staff).

IRELAND

Nondisadvantaged preschools

According to the information provided by directors of nondisadvantaged preschool settings, these settings seem to be fairly small in size. The staff consists of 1 to 2 adults working in each classroom and possibly 1 or 2 administrators. Most of the adults working in the classrooms are teachers, but a small number were identified as either teacher aides or child care workers. The data suggest that in a few settings the director may also function as a classroom adult. Since the typical nondisadvantaged preschool setting employs no support staff, it would appear that the administrators and/or the adults working in the classrooms perform such tasks as keeping the accounts and cleaning the setting. See Table 5.20 on the following page.

Disadvantaged preschools

In general, staffing in these settings consists of 1 to 4 adults working in the classrooms, possibly 1 or 2 administrators, and possibly 1 or 2 support staff. Unlike the situation in nondisadvantaged

Table 5.20 Staffing for a typical setting of each type in Ireland

Category of Staff	Nondisadvantaged Preschools Number of Staff	Disadvantaged Preschools Number of Staff	Disadvantaged National Schools Number of Staff		Nondisadvantaged National Schools Number of Staff	
			Small	Large	Small	Large
Administrators	0–2	0–2	2	2	1–3	1–3
Adults in the classrooms	1–2	1–4	2–9	15–19	3–6	11–17
Auxiliary staff	0	0	0	0	0	0
Support staff	0	0–2	0–2	2–4	0–3	0–3

preschool settings, classroom adults in disadvantaged preschool settings seem to be nearly evenly divided between teachers (including head teachers) and child care workers (or day care workers). The support staff typically includes a secretary/clerk or bookkeeper and in a few cases a maintenance person or cook.

Disadvantaged national schools

Responses from directors suggest that there are 2 sizes of disadvantaged national schools—small and large—distinguished by the number of classrooms and the number of support staff employed. The staff in a typical small disadvantaged national school includes a total of 2 to 9 adults working in the classrooms (1–2 adults per classroom). This type of setting also generally has 1 or 2 support staff (e.g., secretary/clerk, maintenance person). The staff in a typical large disadvantaged national school includes a total of 15 to 19 adults working in the classrooms (1–2 adults per classroom) and 2 to 4 support staff. In settings of both sizes, adults working in the classrooms are almost always teachers or assistant teachers. Also, settings of both sizes typically have 2 administrators.

Nondisadvantaged national schools

As described by directors, the staffing in these settings is similar to that in disadvantaged national school settings. There are small settings, in which the staff consists of 1 to 3 administrators and 3 to 6 classroom adults (1–2 per classroom). The typical small nondisadvantaged national school also has 1 to 3 support staff (e.g., secretary/clerk, maintenance person). The staffing in large nondisadvantaged national schools differs only in the total number of adults working in the classrooms, with these settings typically employing 11 to 17 such persons (1–2 adults per classroom). As with the other type of national school setting, classroom adults are almost always teachers or assistant teachers.

ITALY

Preprimary schools

According to the information provided by the directors of preprimary schools in Italy, there are 2 sizes of settings, small and large, with the difference being the number of adults working with children in the classrooms. Settings of both sizes typically have 2 to 3 administrators and 2 to 6 support staff (e.g., secretary/clerk, maintenance person, cook). In small settings there are typically 1 to 11 adults working in the classrooms, and in large settings there are 13 to 21 such adults. These 2 sizes of settings account for 90% of the preprimary settings, with the remaining 10% consisting of very large settings with 25 or more classroom adults. In settings of all sizes, most of the adults working in the classrooms are lead teachers; the rest are teacher aides/assistants. See Table 5.21, below.

Table 5.21 Staffing for a typical preprimary school in Italy

	Preprimary Schools Number of Staff	
Category of Staff	Small	Large
Administrators	2–3	2–3
Adults in the classrooms	1–11	13–21
Auxiliary staff	0	0
Support staff	2–6	2–6

NIGERIA (3 STATES)

Urban group settings

Responses from directors of urban group settings in Nigeria indicated that most of the settings can be classified as either small or large. Most of the settings that do not fit these categories are very large, employing as many as 25 to 40 adults to work in classrooms. Approximately half of all urban group settings can be identified as small settings, that is, settings typically employing 2 to 8 classroom adults. The only other staff in these settings may be an administrator. Large urban group settings seem to be less common and typically employ 11 to 15 adults in the classrooms. These large settings generally have 1 to 3 administrators. In settings of both sizes, 60% or more of the adults working in the classrooms are teachers (or head teachers); the others are usually assistant teachers or teacher aides. See Table 5.22, below.

Table 5.22 Staffing for a typical setting of each type in Nigeria

	Urban Group Settings Number of Staff		Rural Group Settings Number of Staff	
Category of Staff	Small	Large	Small	Large
Administrators	0–1	1–3	0–1	0–1
Adults in the classrooms	2–8	11–15	3–6	9–11
Auxiliary staff	0	0	0	0
Support staff	0	0	0	0

Rural group settings

According to responses from directors of rural group settings, most settings are either small or large. Again, the major distinction is the number of adults employed to work in the classrooms. The staffing in small settings consists primarily of 3 to 6 classroom adults; a few directors reported having an administrator. In these settings, the majority of adults working in the classrooms are teachers (or head teachers), with the remainder identified as teacher aides or child care workers. Staffing in large settings includes 9 to 11 adults working in the classrooms; sometimes there is also an administrator.

Adults working in large rural settings are likely to be teachers or head teachers, with only a small percentage classified as teacher aides or child care workers.

Poland

Urban preschools

Based on the urban preschool directors' responses, urban preschools in Poland include small settings and large settings. In small settings the staff typically includes a single administrator, 4 to 8 adults working in the classrooms within the setting, and possibly 1 to 4 support staff (e.g., maintenance workers, cooks). In large settings, the staff consists of 1 or 2 administrators, 9 to 13 classroom adults, 1 to 7 support staff (e.g., maintenance workers, cooks), and possibly 1 auxiliary staff person (e.g., nurse). While most settings in the study can be classified as small or large, there are a small number of very small settings (i.e., 1 to 3 adults working in the classrooms) and a small number of very large settings (i.e., as many as 28 classroom adults). Directors in settings of both sizes identified most classroom adults as teachers and labeled the remainder as substitutes. See Table 5.23, below.

The director of an urban preschool in Poland shares ideas with an advisor.

Table 5.23 Staffing for a typical setting of each type in Poland

	Urban Preschools Number of Staff		Rural Preschools Number of Staff	
Category of Staff	Small	Large	Small	Large
Administrators	1	1-2	1	1-2
Adults in the classrooms	4–8	9–13	1–7	8–12
Auxiliary staff	0	0–1	0	0
Support staff	0–4	1–7	1–3	1–4

Rural preschools

The responses of directors in rural preschool settings indicated that there are both small and large settings in operation throughout Poland. The staff in small settings typically includes an administrator, 1 to 7 adults working with children in the classrooms, and 1 to 3 support staff (e.g., maintenance persons, cooks). The staff in large settings typically consists of 1 or 2 administrators, 8 to 12 classroom adults, and 1 to 4 support staff (e.g., maintenance persons, cooks). As in urban preschool settings, most of the classroom adults in rural preschools were identified by directors as teachers, with the remainder classified as substitutes.

ROMANIA

Urban normal-day kindergartens

The information provided by directors of urban normal-day kindergartens in Romania indicated that there are 2 sizes of settings, differing primarily in the number of teachers working in the classrooms. That is, settings of both sizes typically contain 1 administrator, no auxiliary staff, and 1 to 2 support personnel (e.g., bookkeeper, maintenance person). Small settings typically have 2 to 6 adults working in the classrooms (80% of the selected settings), and large settings typically have 10–14 (20% of the settings in the sample). In settings of both sizes, nearly all of these adults are teachers. Only a very small number of settings of either size reported employing even 1 aide or assistant. See Table 5.24, below.

Table 5.24 Staffing for a typical setting of each type in Romania

	Urban Normal-day Kindergartens Number of Staff		Rural Normal-day Kindergartens Number of Staff	Urban Long-day Kindergartens Number of Staff	
Category of Staff	Small	Large		Small	Large
Administrators	1	1	1	1	1
Adults in the classrooms	2–6	10–14	1–5	5–8	11–21
Auxiliary staff	0	0	0	1–3	1–3
Support staff	1–2	1–2	0–1	4–14	10–25

Rural normal-day kindergartens

Directors' responses on the Provider Survey provide the following picture of the staffing of a typical rural normal-day kindergarten setting. The setting generally contains a single administrator, 1 to 5 adults working in the classrooms, and sometimes a support person (maintenance worker). Approximately 40% of directors in rural normal-day kindergartens reported having 1 or more aides/assistants on staff.

Urban long-day kindergartens

The presence of auxiliary staff and of many support staff seems to be unique to the urban long-day kindergarten settings in Romania. This information is consistent with the findings presented in the "Patterns of Operation" section in Chapter 6, where it is noted that children usually spend 7–11 hours daily in these settings (typically they spend only 3½ to 5 hours daily in the other two types of settings in Romania). The information from the directors of urban long-day kindergarten settings suggests that there are small settings and large settings, with small ones having 5–8 adults working in the classrooms and large ones having 11–21 classroom adults. Of the total sample of settings selected for this study, approximately 30% were small settings and 70% were large settings. Although approximately 90% of the adults working in the classrooms are head teachers or teachers, a majority of the directors for settings of both sizes reported employing assistant teachers. Nearly all of the auxiliary staff in settings of both sizes are nurses; support staff generally include maintenance persons, cooks, and bookkeepers.

SPAIN (CATALONIA)

Public kindergartens

Based on the information provided by the directors of public kindergarten settings in Spain, there seem to be 2 typical sizes of settings, small (75% of the selected settings) and large (25% of the settings in the sample). Settings of both sizes typically employ 1 administrator and 1 to 4 support personnel (e.g., secretary/clerk, maintenance person). The major difference between small and large settings is the number of adults working in the classrooms, with the small settings averaging 4–7 and the large settings averaging 15–30. In settings of both sizes, approximately 90% of the adults working in the classrooms are teachers; the remainder are aides or assistants. See Table 5.25, below.

Table 5.25 Staffing for a typical setting of each type in Spain

	Public Kindergartens Number of Staff		Private Kindergartens Number of Staff
Category of Staff	Small	Large	
Administrators	1	1	1–3
Adults in the classrooms	4–7	15–30	1–9
Auxiliary staff	0	0	0
Support staff	1–4	1–4	1–4

Private kindergartens

The results of the private kindergarten directors' responses revealed that the typical setting contains 1 to 3 administrators and 1 to 4 support personnel (e.g., bookkeeper, secretary, maintenance person). These settings typically have 1 to 9 adults working in the classrooms; approximately 80% of these adults are teachers and the rest are aides or assistants. No director reported employing auxiliary staff.

THAILAND

Educational programs

Within the educational programs in Thailand, there seem to be settings of 3 sizes (small, medium, and large), with the divisions based on the number of adults working in the classrooms in each setting. Directors of small programs typically reported hiring 1 to 9 classroom adults and 1 to 4 support personnel (e.g., bookkeeper, maintenance person, cook, or driver). Medium-sized settings employ 12–27 adults to work in the classrooms and 5 to 20 support personnel. The directors in the largest educational program settings reported having 36 to 100 adults working in the classrooms and 22 to 30 support personnel. Table 5.26 presents these findings and shows two similarities across the educational program settings of different sizes: (1) all settings employ a small number of administrators, and (2) few if any settings have auxiliary staff. Detailed data reveals that in settings of all 3 sizes nearly all adults working in the classroom are teachers; settings employ very few aides or assistants. See Table 5.26, below.

Table 5.26 Staffing for a typical setting of each type in Thailand

	Educational Programs Number of Staff			Child Care Centers Number of Staff
Category of Staff	Small	Medium	Large	
Administrators	1–3	2–5	3–5	0
Adults in the classrooms	1–9	12–27	36–100	1–3
Auxiliary staff	0	0	0	0
Support staff	1–4	5–20	22–30	0

Child care centers

Based on the information provided by the directors of the child care settings in Thailand, personnel in these settings consist mainly of adults working in the classrooms. As noted in Table 5.26, few of the settings employ an administrative staff member, an auxiliary staff person, or support personnel. In most settings, classroom adults are child care workers. It would appear that in these child care settings a small number of child care workers perform all the services needed to operate such a setting (e.g., care/education of the children, bookkeeping, maintenance).

UNITED STATES (6 SITES)

Head Start centers

Head Start centers in the United States have a complex organizational system, which results in settings of all possible sizes. A typical small Head Start setting has 1 administrator and a total of 6 to 12 adults working in the classrooms. These adults include teachers, teacher aides, and volunteers (usually parents). Since Head Start is a comprehensive services program, even small Head Start settings employ auxiliary staff (i.e., social worker, nurse). These settings also employ support staff to prepare meals and provide transportation. A large Head Start center differs from a small one primarily in that it employs more staff in each of the major categories. In addition to small and large Head Start centers, there are a small number of extremely large settings, which serve very large numbers of children. See Table 5.27, below.

Table 5.27 Staffing for a typical setting of each type in the United States

	Head Start Centers Number of Staff		Public School Preschools Number of Staff		Other Organized Programs Number of Staff	
Category of Staff	Small	Large	Small	Large	Small	Large
Administrators	1	2	1–2	1–2	1–2	1–2
Adults in the classrooms	6–12	20–34	2–4	11–20	2–5	8–13
Auxiliary staff	2	2	0–1	0–2	0	0–1
Support staff	4–5	6–8	0–3	2–6	0–3	0–5

Public school preschools

According to the responses of directors in these settings, there are 2 predominant sizes of public school preschools, small and large. There are also a small number of very large settings, primarily in urban areas. As shown in the table, small public school preschools typically employ 1 to 2 administrators and have 2 to 4 adults working in the classrooms, with nearly equal numbers of teachers and teacher aides. These small settings may employ a nurse as an auxiliary staff member and may have as many as 3 support staff (e.g., maintenance person, secretary). Large public school preschools are similar to small ones in the number of administrative and auxiliary staff members, but they generally have more classroom adults (11 to 20) and more support staff (e.g., maintenance person, cook, bookkeeper, driver). In some larger settings, 33% of classroom adults are teachers and 67% are teacher aides.

Other organized programs

As described by directors, there are generally small and large programs in this group. Small programs consist of 1 or 2 administrators, 2 to 5 adults working in the classrooms, and possibly 1 to 3 support staff (e.g., maintenance person, bookkeeper). There are nearly equal numbers of teachers and assistant teachers among the adults working in the classrooms. Large programs differ primarily in the number of adults working in the classrooms, with these settings typically employing 8 to 13 such persons. As in the small settings, there are nearly equal numbers of teachers and assistant teachers among the adults in these rooms. The total group of other organized programs also includes a small number of extremely large settings, each having between 35 and 80 adults working in a large number of classrooms. These very large settings generally employ 2 to 6 administrators, a small number of auxiliary staff, and 2 to 14 support staff. Typically in this type of setting, 35% of adults working in the classroom are teachers, and 65% are assistant teachers or teacher aides.

DISCUSSION

Management policies provide the framework within which early childhood settings operate, so it is important to explore the nature of the policies for settings participating in this study. One component of management policies, sponsorship, often determines funding sources, including decisions about the charging of parent fees. Another component is the licensing or certification system, which frequently provides guidelines for such program elements as the physical characteristics of settings (e.g., minimum size of rooms, equipment and materials), teacher training, and group size. In this section of the chapter we will relate the management policy findings of the current study to information presented in the literature review and in the national profiles.

Two findings from the sponsors section that are worthy of comment are (1) the high percentage of settings in many countries with multiple sponsors, and (2) the high percentage of settings for which the government is a sponsor. In several countries the multiple sponsorship consists of the government and another organization or agency. Sometimes it is a combination of a federal/national government and a local government agency (such as in Belgium's public nursery schools). In other countries, the sponsor combinations consist of a government agency and an educational institution (such as in Italy's preprimary schools), or a government agency with an employer (such as in China's urban kindergartens). Other complex combinations of sponsors, consisting of private institutions, religious organizations, volunteer groups, and so forth, are reported by the directors of settings in countries such as Indonesia and Thailand.

Multiple sponsorship offers some advantages, such as having both national and local government involved in the provision of early childhood services or having additional funding available since it comes from more than 1 organization/agency (e.g., government, religious organization). However, one possible disadvantage to such arrangements is the additional administrative time required for coordination of operating guidelines from the different organizations/agencies and the documentation required by individual sponsors—time that might be better spent working directly with teachers or with children.

The large percentage of settings of which the government is a sponsor is notable but must be considered in light of the countries participating in this study and the types of settings selected within those countries. At present there are many developing countries in the world where infant survival is still a major concern (e.g., many Latin American countries). Government agencies, local organizations, and international agencies in these nations are primarily focused on the survival and health of infants and young children rather than on their care and education. However, the present study did not include any of these countries; the developing countries that chose to participate are ones in which the problem of infant survival has to a large degree been solved, and attention has shifted to the care and development of young children. Governments in the developed countries in this study are likewise able to focus on providing early childhood care and education services.

Another factor to be considered is the type(s) of settings selected for the study by each participating country. Most participating countries used the findings from Phase 1 of the Preprimary Project, a household survey of a representative sample of families with 4-year-old children, to identify the major types of early childhood care and educational settings in their country. However, in some countries only a few of the several types of early childhood settings were selected for inclusion in the present study. This was particularly true if one or more types enrolled smaller numbers of children but were important for public policy reasons.

The United States provides a good example of this situation. While the picture presented in the present set of findings is one of major government sponsorship of early childhood settings, that is clearly influenced by the types of settings selected, especially the Head Start centers and the public school preschools. Both of these types of settings are sponsored by the government and are designed specifically for at-risk children. Although the total enrollment in both of these types of settings is relatively small, the programs are included in the study because they are very important in American early childhood public policy. The majority of 3- to 5-year-old children in the United States who have out-of-home care attend preschools and child care centers that are represented in the type of setting labeled "other organized programs." A total of 23% of the directors of programs of this type listed the government as a sponsor, a percentage that is probably more representative of settings in the United States.

The licensing and supervision findings indicate that nearly all countries have a licensing/certification system in place. However, as noted earlier, having specific information about the minimum levels needed for certification would be necessary in order to more fully understand each country's system. Although the directors provided little information about the areas of focus for licensing, the national profiles provide some information. Areas evaluated for certification that were mentioned in more than one national profile include sanitary conditions, fire/safety equipment, staffing qualifications, staff-child ratio, and children's equipment and materials. An interesting area of focus for licensing was given in Slovenia's national profile—environmental health conditions—an area that other countries may begin to consider in future years.

The findings for admissions criteria and maintenance of records were surprisingly similar across the various countries and were consistent with the information provided in the national profiles. These findings indicated that age of child was the primary criterion for admission across all types of early childhood settings in all participating countries. The results of record maintenance noted that most types of settings across the participating countries kept background information records and attendance records, with settings in many countries also maintaining medical records and results of child evaluations.

It is interesting to consider the relationship between the charging of fees to families whose children attend settings and the sponsorship of settings. That relationship was explored using the findings from the present study and is described in the following three statements.

- There are settings sponsored by various levels of government that *do not charge* fees to families whose children attend the settings (e.g., public and private nursery schools in Belgium, preprimary schools in Italy, Head Start centers in the United States).
- There are settings sponsored by various levels of government that *charge* fees to families whose children attend the settings (e.g., child care centers in Finland, public kindergartens in Greece, urban and rural preschools in Poland, urban long-day kindergartens in Romania).
- Settings in which the government is not a sponsor are likely to charge fees to families whose children attend the settings (e.g., kindergartens and child care centers in Hong Kong, urban and rural kindergartens in Indonesia, urban and rural group settings in Nigeria).

As noted in the literature review, there have been changes in the funding of early childhood settings in central and eastern European nations during the past several years. As central governments have decreased their role in the provision and support of early childhood services, they have delegated them to local governments. These local governments frequently do not have sufficient funding to maintain programs and thus sometimes either close programs or institute a system of charging fees to parents as one means of financial support for the services. Many families have difficulty paying these fees and thus do not enroll their children in early childhood programs. The result is a drop in the proportion of 3- to 5-year-old children attending early childhood programs.

This chapter presented the findings for the management policies and staffing characteristics of early childhood settings in the participating countries. The next chapter will look at the patterns of operation and staff-child ratios in these settings.

SUMMARY STATEMENTS

- **The major categories of single sponsors of early childhood settings are government agencies, religious organizations, and private organizations/persons.**
- **For 9 different types of settings across 5 countries (Belgium, China, Italy, Thailand, United States), two thirds or more of the settings reported having multiple sponsors.**
- **Government sponsorship of all or nearly all of at least 1 type of early childhood setting is found in 9 of the 12 countries with sponsorship findings.**

- **In 26 of 30 types of settings reporting findings, 85% or more of the settings are either presently licensed/certified or are in the process of becoming licensed/certified.**
- **In 10 of the 14 countries reporting findings, a majority of 1 or more types of early childhood settings reported the education department as their licensing agency.**
- **The only admissions criterion identified by directors in a majority of the 30 types of settings reporting findings was age of child.**
- **A majority of directors in all or nearly all of the 29 settings reporting findings noted that 2 types of records are maintained, child/family background information records and attendance records.**
- **In 18 of the 28 types of settings reporting findings, 80% or more of the directors noted that their settings charge fees to the families whose children attended the setting.**
- **In most types of early childhood settings across the participating countries, the adults working with the children include both professional staff (i.e., lead teacher, teacher) and less trained staff (i.e., teacher aide, day care assistant).**

VI

PATTERNS OF OPERATION, GROUP SIZES, AND STAFF-CHILD RATIOS

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The literature review in Chapter 2 presents the extent of coverage of preprimary services in various regions of the world. It notes that these services may be designed to provide *remedial education for economically disadvantaged children, offer enrichment for middle- and upper-class children, or meet the child care needs of employed parents* (Chapter 2, p. 21).

Each national profile (Chapter 3) provides data regarding the extent of coverage of preprimary services; a few note that settings designed primarily to meet the educational needs of children sometimes adjust their schedules to also meet the needs of working parents. For example, the Chinese profile states that *kindergartens are generally open 5 days per week year-round. They are closed 2–3 weeks for winter vacation and 4–5 weeks for summer holiday; however, in many programs teachers rotate their vacations so that children whose parents work during these times can still attend school* (Chapter 3, p. 61). Also, the Slovenian profile notes that *preprimary centers are open 5 days per week, and some provide day care on Saturday as needed. Kindergartens are open all year, even during school holidays, thus providing care and education for children who need it during these times* (Chapter 3, p. 95). This chapter presents the Provider Survey findings relating to the weeks, days, and hours of operation of the early childhood settings in the study.

The other major category of findings presented in this chapter concerns group size and staff-child ratios. As described in the literature review, the assumption underlying the importance of staff-child ratios in early childhood settings is that

> adult caregivers mediate children's contact with the social and physical world. Through social games, verbal interaction, and physical contact, caregivers offer children opportunities to practice and enjoy social exchanges, learn about the properties of objects, and acquire a sense of security and self-worth. (Phillips & Howes, 1987, p. 8)

Most of the research exploring the relationships of group size and staff-child ratio with either process quality in settings (generally as assessed by the ECERS) or child outcomes has been conducted in the United States. While many early childhood programs in the United States have established standards for group size and staff-child ratios based on this research, in many other nations government agencies (such as ministries of education) have established their own standards. Factors such as the amount of resources available for early childhood care and education and the type of program or sponsoring agency often influence the standards established for staff-child ratios.

To provide background information for the findings in this section, here are some typical staff-child ratios identified in the national profiles by participating countries from various regions of the world. In western Europe, Belgian surveys have shown that a common staff-child ratio in early childhood settings is 1:18, while Italy states that for full-time preschools, Ministry of Education regulations specify 14 to 28 children for 2 teachers. Finland is unique in presenting a typical staff-child ratio of 3 adults to 20 children in full-time settings.

In eastern Europe, Poland reports a typical staff-child ratio of 1:21–23, while Slovenia notes that at the time of data collection classrooms generally contained 2 teachers and approximately 30 children. The participating countries from Asia and Africa report staff-child ratios in the range of 1:15 (Hong Kong child care centers), 1:25 (Indonesia), or 1½:35–40 (Thailand). Using the total number of adults working in a setting (e.g., administrators, teachers, nurses, cooks) and the number of children in all classrooms within the setting, China reports a typical staff-child ratio of 1:6–7.

We now turn to the patterns of operation in early childhood settings across the 15 countries. The findings on group size and staff-child ratio follow.

PATTERNS OF OPERATION

The Provider Survey includes questions asking for the following information about patterns of operation:

- Number of weeks per year that services are available
- Number of days per week the setting is open
- Daily opening and closing times for the setting
- Number of hours per day that a 4-year-old child would typically spend at the setting

To provide a clearer picture of the overall patterns of operation within a country, the findings for the entire set of questions are presented separately for each country. For the reader who is interested primarily in looking at the findings from a cross-national perspective, Tables D.1, D.2, and D.3 in Appendix D contain summaries of these findings for the 31 types of settings in the study.

BELGIUM (FR.—LIÈGE PROVINCE, BRUSSELS)

Preschool settings are generally open for 38 weeks of the year and operate 5 days a week, Monday through Friday, with half-day services on Wednesday. Programs usually open between 8:00 and 9:00 a.m. and end between 3:00 and 4:00 p.m., except on Wednesday when programs usually close between 11:30 a.m. and 12:30 p.m. See Table 6.1, facing page.

Although the Belgian data set for Phase 2 of the IEA Preprimary Project did not contain data on the number of hours a day children typically attend preschool, this information was reported in

Table 6.1 Patterns of operation in settings in Belgium

Characteristic	Public Nursery Schools (*N* = 28)	Private Nursery Schools (*N* = 27)
Number of hours per day setting is open		
Median*	7	7
Range (hours, minutes)	6,30–10,00	6,30–10,15
Number of hours per day child in setting		
Median	—	—
Range	—	—
Number of weeks per year setting is open		
Median	38	38
Range	38–38	38–38

Dash indicates no data available.

* Wednesday: Public nursery schools—median = 3,30; range = 3,00–10,00
Private nursery schools—median = 3,30; range = 2,30–10,15

a chapter describing early childhood services in Belgium written by Arlette Delhaxhe in an earlier project publication, *How Nations Serve Young Children* (Olmsted & Weikart, 1989). Delhaxhe states, "All 3- and 4-year-old children are at school in the morning, and most of them attend school all day, while 5-year-olds attend a full day of school" (pp. 27–28). In addition, as the findings reported in *Families Speak* (Olmsted & Weikart, 1994) indicate, typically parents, relatives, or friends care for preschool-aged children before school begins in the morning, during lunch time, and in the late afternoon (pp. 230–231).

China (PRC, 6 provinces)

Nearly all kindergartens in China are open 6 days a week, Monday through Saturday. A number of kindergartens—18% in urban areas and 15% in rural areas—are also open on Sunday. Table 6.2 (below) presents information about the number of hours per day settings are open, the number of hours per day that children attend the settings, and the number of weeks per year that kindergartens

Table 6.2 Patterns of operation in settings in China

Characteristic	Urban Kindergartens (*N* = 216)	Rural Kindergartens* (*N* = 191)
Number of hours per day setting is open		
Median (hours, minutes)	10,30	6
Range	8–24	4–13
Number of hours per day child in setting		
Median	10	5,30
Range	6–24	4–13
Number of weeks per year setting is open		
Median	52	42
Range	11–52	6–52

* Due to problems in the master data set, the findings for rural kindergartens have been provided by the national project coordinator in China.

Children participate in morning exercises in a rural preschool in China.

are open. The median number of operating hours per day in urban kindergartens (10½ hours) is greater than that in rural kindergartens (6 hours). The same is true for the number of hours children typically attend the settings (urban median = 10 hours; rural median = 5½ hours). Both urban and rural kindergartens report a wide range of hours that children attend, from just a few hours per day up to 24 hours in some urban kindergartens. These latter programs are boarding kindergartens that are attended by a small percentage of children.

Most urban kindergartens reported that their operating day begins at 7:00 or 7:30 in the morning and ends around 5:00 or 5:30 in the afternoon. Rural kindergartens tend to start somewhat later in the morning (the average opening time is 8:00 or 8:30 a.m.), break for lunch and reconvene in the afternoon, then finally end the day around 4:30 or 5:00 p.m. Urban kindergartens, on average, are open more weeks per year than rural kindergartens (median of 52 weeks and 42 weeks, respectively). Although there is a wide range in the weeks of operation for both types of kindergartens, a detailed look at the data indicates that most urban kindergartens operate for at least 48 weeks a year and most rural kindergartens operate for at least 40 weeks a year.

FINLAND

Child care centers in Finland are generally open 5 days a week, Monday through Friday. Most centers open between 6:00 and 6:30 a.m. and close between 5:00 and 5:30 p.m. Although there is little variability in opening times, closing times vary more, with a few centers closing as late as 9:00 or 10:00 p.m.

As Table 6.3 (below) shows, on average, Finnish child care centers are open 10½ hours a day. The typical child attends for 9 hours a day; some children attend for as few as 6½ hours a day, while others are at the center for as many as 11 hours a day. As the table also shows, the median number of weeks per year that child care centers are open is 48, with a minimum of 43 weeks and a maximum of 52 weeks.

Table 6.3 Patterns of operation in child care centers in Finland

Characteristic	Child Care Centers ($N = 66$)
Number of hours per day setting is open	
Median (hours, minutes)	10,30
Range	9,30–15,30
Number of hours per day child in setting	
Median	9
Range	6,30–11
Number of weeks per year setting is open	
Median	48
Range	43–52

GREECE (URBAN)

Public kindergartens and child care centers in Greece are open 5 days per week, Monday through Friday. As Table 6.4 (below) shows, the median number of operating hours per day for public kindergartens is 3½ hours, while the median for child care centers is 9 hours. There is little variability in the hours per day for the sample of public kindergartens (3 hours to 4 hours, 15 minutes), but child care center data show greater variability in hours (5½ to 10).

Table 6.4 Patterns of operation in settings in Greece

Characteristic	Public Kindergartens ($N = 49$)	Child Care Centers ($N = 22$)
Number of hours per day setting is open		
Median (hours, minutes)	3,30	9
Range	3–4,15	5,30–10
Number of hours per day child in setting		
Median	3,30	8
Range	3–3,40	5,30–10
Number of weeks per year setting is open		
Median	36	44
Range	36–36	36–52

Most public kindergartens open between 8:00 and 9:00 a.m. and close between 11:30 a.m. and 12:30 p.m. Child care centers generally open between 6:30 and 7:00 a.m. and remain open until 4:00 or 4:30 p.m. The number of hours children typically spend in public kindergartens is identical to the number of hours the settings are open. Child care centers are open, on average, for 9 hours a day, and children generally spend 8 hours in the setting. Not surprisingly, public kindergartens reported being open during 36 weeks of the year (similar to the length of a school year), while child care centers, on average, are open for 44 weeks per year. However, some child care centers offer services for as few as 36 weeks, and others are open during the entire year.

HONG KONG (SAR)

All kindergartens and child care centers in Hong Kong are open 5 days a week, Monday through Friday. A large percentage of child care centers (88%) also reported being open on Saturday, as did a small percentage of kindergartens (16%). Table 6.5, below, presents basic statistical information about the patterns of operation of early childhood settings in Hong Kong. In general, kindergartens operate half-day programs (median = 3½ hours of operation, with a range of 3 to 5 hours), while child care centers operate full-day programs (median = 10 hours of operation, with a range of 4 to 10 hours). The median number of hours that children attend the 2 types of settings is very similar to the number of hours the settings are open.

Most kindergartens reported that they open between 8:00 and 9:00 in the morning and close between 12:00 and 12:30 in the afternoon. Child care centers generally begin operating between 8:00 and 8:30 in the morning and close between 5:30 and 6:00 in the afternoon Monday through Friday; on Saturday most centers close between 12:30 and 1:00 in the afternoon. Child care centers, on average, are open more weeks per year than kindergartens (median of 50 weeks and 41 weeks, respectively). Although there is some variation in the weeks of operation for both types of settings, the data indicate that most kindergartens operate for at least 39 weeks a year and most child care centers operate for at least 48 weeks a year.

Table 6.5 Patterns of operation in settings in Hong Kong

Characteristic	Kindergartens (*N* = 26)	Child Care Centers (*N* = 25)
Number of hours per day setting is open		
Median (hours, minutes)	3,30	10
Range	3–5	4–10
Number of hours per day child in setting		
Median	3	10
Range	3–3,45	2–14,30
Number of weeks per year setting is open		
Median	41	50
Range	22–52	46–52

INDONESIA (JAVA)

Nearly all kindergartens in Indonesia are open in the morning, 6 days per week, Monday through Saturday. Opening and closing times vary somewhat from setting to setting; however, in general kindergartens begin between 7:00 and 7:30 a.m. and end between 9:00 and 10:30 a.m. A small number of settings reported remaining open until midday (12:00 to 12:30 p.m.). Table 6.6 (facing page) presents statistical information about the hours of operation and weeks of operation of settings in Indonesia.

Table 6.6 Patterns of operation in settings in Indonesia

Characteristic	Urban Kindergartens (*N* = 39)	Rural Kindergartens (*N* = 28)
Number of hours per day setting is open		
Median (hours, minutes)	2,40	2,30
Range	2–5,30	1,30–6
Number of hours per day child in setting		
Median	2,30	2,30
Range	2–5,15	1,30–4
Number of weeks per year setting is open		
Median	45	40
Range	32–52	30–50

In both urban and rural areas, kindergartens are open, on average, for 2½ hours per day and children attend these settings, on average, for 2½ hours per day. A few children attend settings for as little as 1 hour per day, while others may be present for as many as 4 or 5 hours during a day. The median number of weeks per year that kindergartens are open is slightly greater in urban areas than in rural areas (45 weeks versus 40 weeks).

IRELAND

In Ireland, most settings of all 4 types reported being open 5 days per week, Monday through Friday. However, nearly one third of both types of preschools (disadvantaged, nondisadvantaged) indicated that they close on Friday. Information regarding the hours per day and weeks per year of operation and the hours per day of child attendance are presented in Table 6.7, below. Nondisadvantaged preschools reported the shortest operating day, an average of 3 hours. The other 3 types of settings indicated that they are open for 5 to 5½ hours during a typical day. As the table indicates, children generally attend the 2 preschool settings for 3 hours per day and attend the 2 national school settings for 4½ hours per day.

Both types of preschool settings reported opening times of 8:30 to 9:00 in the morning. While most preschool settings close between 12:00 and 12:30 p.m., a few disadvantaged preschools indicated

Table 6.7 Patterns of operation in settings in Ireland

Characteristic	Nondisadvantaged Preschools (*N* = 25)	Disadvantaged Preschools (*N* = 29)	Disadvantaged National Schools (*N* = 27)	Nondisadvantaged National Schools (*N* = 28)
Number of hours per day setting is open				
Median (hours, minutes)	3	5,30	5,30	5
Range	2,30–9	2,30–8	4–6	3,45–6,30
Number of hours per day child in setting				
Median	3	3	4,30	4,30
Range	2–5	2–8	4–6	3,30–6,30
Number of weeks per year setting is open				
Median	38	40	39	37
Range	26–52	25–50	30–43	26–40

that they remain open as late as 4:00 or 5:00 in the afternoon. There was slightly more variability in the opening and closing times for the 2 types of national schools. In general, both disadvantaged and nondisadvantaged national schools open between 8:30 and 9:30 in the morning and close between 1:00 and 3:00 in the afternoon. All 4 types of settings generally operate between 37 and 40 weeks during the year; however, within each group there are settings open for as few as 25–30 weeks per year and settings open for as many as 40–52 weeks per year.

ITALY

In Italy, all preprimary schools operate at least 5 days per week, Monday through Friday, and nearly half of the settings (42%) are also open on Saturday. Table 6.8, below, presents information about the operating hours and operating weeks of Italian settings as well as information about the hours that children typically spend in these settings. As the table shows, preprimary schools in Italy are open, on average, for 8 hours per day, with some settings open for as little as 4 hours and others open for as long as 10½ hours per day. In general, children attend these settings during their entire opening periods each day (i.e., median = 8 hours, range = 4 to 10½ hours). On Saturday the settings are open, on average, for 5 hours, with children in attendance during the entire time.

Most preprimary schools reported weekday opening times between 8:00 and 8:30 in the morning. On weekdays, the settings generally close between 4:00 and 4:30 in the afternoon. Settings open on Saturdays generally operate between 8:00 a.m. and 1:00 p.m. Preprimary settings in Italy generally operate during 38 weeks of the year, with some settings open for as few as 30 weeks and others as many as 46 weeks.

Table 6.8 Patterns of operation in preprimary schools in Italy

Characteristic	Preprimary Schools (*N* = 143)
Number of hours per day setting is open*	
Median	8
Range (hours, minutes)	4–10,30
Number of hours per day child in setting**	
Median	8
Range	4–10,30
Number of weeks per year setting is open	
Median	38
Range	30–46

* Saturday: median = 5; range = 4–8
** Saturday: median = 5; range = 4–8

NIGERIA (8 STATES)

Nearly all urban and rural group settings in Nigeria are open 5 days per week, Monday through Friday; a small number of urban group settings reported being open on Saturday and Sunday as well. Table 6.9 (facing page) presents information about the operation of group settings in Nigeria and children's attendance. The median number of operating hours per day is 5 hours for urban group settings and 4½ hours for rural group settings; however, this can vary from approximately

Table 6.9 Patterns of operation in settings in Nigeria

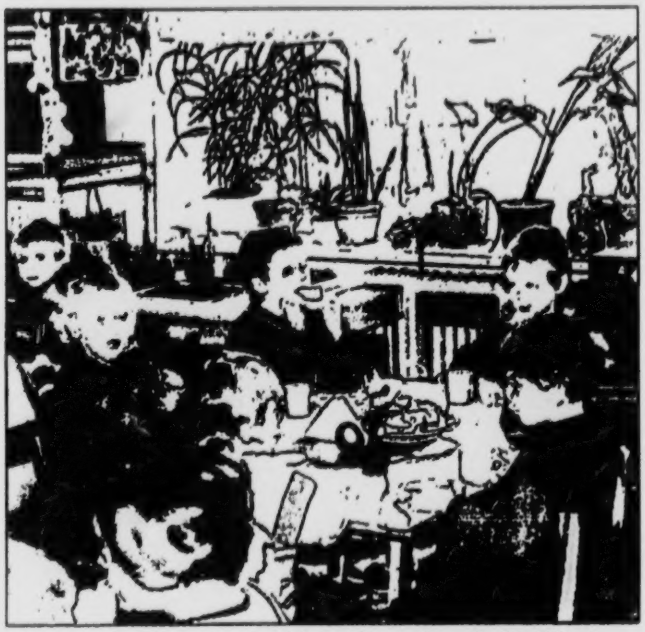
Characteristic	Urban Group Settings (*N* = 48)	Rural Group Settings (*N* = 19)
Number of hours per day setting is open		
Median (hours, minutes)	5	4,30
Range	3,45–8	4–7,30
Number of hours per day child in setting		
Median	5	4
Range	3,45–8	4–7,30
Number of weeks per year setting is open		
Median	39	36
Range	12–45	12–40

4 hours to 7½ or 8 hours in both types of settings. For most settings, children are present for the entire period during which the settings are open.

Most urban group settings reported that they open around 8:00 in the morning and close by 1:00 in the afternoon. There is greater variability in the opening and closing times reported by respondents in the rural group settings. These settings generally open between 7:30 and 8:30 a.m. and close between 12:00 and 1:00 p.m., with a few settings operating as late as 4 p.m. Urban group settings are open, on average, for 39 weeks during the year, with some settings open as few as 12 weeks and others open as many as 45 weeks. The corresponding figures for the rural group settings are 36 weeks (median), 12 weeks (minimum), and 40 weeks (maximum).

POLAND

Nearly all preschools in Poland are open 5 days a week, Monday through Friday; a small number, mostly in urban areas, are open on Saturday as well. Table 6.10 (following page) presents information about hours of operation, hours of child attendance, and weeks of operation. As the table indicates, the median number of operating hours per day is 10 in urban areas and 9 in rural areas. The variation around this median is small for settings in urban areas (minimum = 9 hours, maximum = 11½ hours) and is much larger for settings in rural areas (minimum = 5 hours, maximum = 11 hours).



Children arrive early and eat breakfast at this rural preschool in Poland.

Table 6.10 Patterns of operation in settings in Poland

Characteristic	Urban Preschools (*N* = 75)	Rural Preschools (*N* = 49)
Number of hours per day setting is open		
Median	10	9
Range (hours, minutes)	9–11,30	5–11
Number of hours per day child in setting		
Median	8	8
Range	7–10	5–9,30
Number of weeks per year setting is open		
Median	44	44
Range	40–52	40–52

Both urban and rural preschools reported that they open early, between 6:00 and 7:00 in the morning. The two types of preschools also have similar closing times, generally between 4:00 and 4:30 in the afternoon. Several settings, particularly in urban areas, reported remaining open until 5:00 in the afternoon. In both urban and rural areas, the median number of weeks per year preschools are in operation is 44, with some settings being open 40 weeks a year and others as many as 52 weeks per year.

ROMANIA

All kindergartens in Romania are open 5 days per week, Monday through Friday. Table 6.11, below, presents information about the number of hours per day that settings are open, the number of hours per day children typically attend, and the number of weeks per year settings are open. Urban normal-day and rural normal-day kindergartens are open, on average, 5 hours per day, and children generally spend 4 hours per day in settings of these types. Urban long-day kindergartens, as the name implies, are open longer, an average of 12 hours per day. Children generally attend for 9 hours per day.

Most urban long-day kindergartens reported that they open between 6:00 and 6:30 in the morning and close between 5:30 and 7:00 in the evening. Most urban and rural normal-day kindergartens open between 7:30 and 8:00 a.m. and close by 1 p.m. Urban long-day kindergartens are open 48

Table 6.11 Patterns of operation in settings in Romania

Characteristic	Urban Normal-day Kindergartens (*N* = 24)	Rural Normal-day Kindergartens (*N* = 21)	Urban Long-day Kindergartens (*N* = 24)
Number of hours per day setting is open			
Median	5	5	12
Range	4–9	4–9	10–14
Number of hours per day child in setting			
Median	4	4	9
Range (hours, minutes)	3,30–5	3,30–5	7–11
Number of weeks per year setting is open			
Median	34	34	48
Range	32–48	34–36	48–48

weeks a year. Urban and rural normal-day kindergartens tend to have a shorter operating year (34 weeks). There is some variation around this median, with some urban normal-day kindergartens open as many as 48 weeks per year.

SLOVENIA

In Slovenia, kindergartens are open 5 days a week, Monday through Friday. Approximately 15% of the kindergartens in the sample reported being open on Saturday. As Table 6.12 (below) shows, the median number of operating hours for Slovenian kindergartens is 10½. However, some settings are open as few as 6½ hours a day and others for as many as 15. Typically, children attend kindergarten for 8½ hours per day, but some children are only present for 5½ hours while others attend up to 10.

Table 6.12 Patterns of operation in kindergartens in Slovenia

Characteristic	Kindergartens ($N = 44$)
Number of hours per day setting is open	
Median (hours, minutes)	10,30
Range	6,30–15
Number of hours per day child in setting	
Median	8,30
Range	5,30–10
Number of weeks per year setting is open	
Median	52
Range	42–52

Nearly all kindergartens open between 5:00 and 6:00 in the morning and remain open until 3:30 or 4:30 in the afternoon. Those settings open on Saturdays reported similar hours for opening and closing. As Table 6.12 shows, kindergartens are typically open during the entire year. Only a small percentage of settings reported being open for less than the whole year.

SPAIN (CATALONIA)

In Spain, public and private kindergartens are generally open 5 days per week, Monday through Friday. The findings in Table 6.13 (following page) indicate that public kindergartens are open, on average, for 8 hours a day, with children generally in attendance for 5 hours per day. The corresponding figures for private kindergartens are 8 hours 45 minutes (median hours per day open) and 6 hours (median hours per day children are present).

Nearly all public kindergartens open at 9:00 in the morning and close at 2:00 in the afternoon. Opening and closing times are more variable for private kindergartens, with settings generally opening between 8:00 and 9:00 in the morning and closing between 5:00 and 6:00 in the afternoon. However, some settings reported opening as early as 7:30 a.m., and some reported closing as late as 8:00 or 8:30 p.m. Both public and private settings are in operation, on average, for 40 weeks during the year.

Table 6.13 Patterns of operation in settings in Spain

Characteristic	Public Kindergartens ($N = 29$)	Private Kindergartens ($N = 25$)
Number of hours per day setting is open		
Median (hours, minutes)	8	8,45
Range	8–10	7,30–13
Number of hours per day child in setting		
Median	5	6
Range	5–8	5–9
Number of weeks per year setting is open		
Median	40	40
Range	27–52	30–48

THAILAND

Educational programs and child care centers in Thailand are open 5 days per week, Monday through Friday. A small percentage of child care centers (14%) reported being open on Saturdays as well, but no settings of either type indicated that they are open on Sunday.

As Table 6.14 (below) shows, the median number of operating hours per day is similar for educational programs (7 hours) and child care centers (7½ hours). However, hours of operation vary across settings, and some child care centers have a much longer day, up to 11 hours. Most educational programs and child care centers open around 8:00 or 8:30 in the morning. The majority of educational programs end their day by 3:30 p.m., while the comparable time for child care centers is 4:00 p.m. There is variability in these times, with some child care centers opening as early as 7:00 a.m. and closing at 6:00 p.m.

Table 6.14 Patterns of operation in settings in Thailand

Characteristic	Educational Programs ($N = 31$)	Child Care Centers ($N = 22$)
Number of hours per day setting is open		
Median (hours, minutes)	7	7,30
Range	6–8,30	6,30–11
Number of hours per day child in setting		
Median	7	7,30
Range	6–8,30	6,30–11
Number of weeks per year setting is open		
Median	40	48
Range	28–50	29–52

The numbers of hours children typically spend in each type of setting is very similar to the median number of hours each type of setting is open, 7 hours and 7½ hours, respectively. Finally, child care centers operate more weeks per year than educational programs. Child care centers are open, on average, 48 weeks per year, compared to 40 weeks per year for educational programs; however, there is a wide range in weeks of operation across both setting types.

UNITED STATES (6 SITES)

All Head Start centers and public school preschools are open 4 days per week, Monday through Thursday, with approximately 70% of each type of setting also operating on Fridays. In general, other organized programs are open 5 days a week, Monday through Friday. Table 6.15, below, presents statistical information about the patterns of operation in the 3 types of group settings included in the study. The median number of operating hours per day in Head Start centers and public school preschools is similar, 6 hours and 6½ hours, respectively, while the corresponding figure for other organized programs is 10½ hours. In all 3 types of settings there is considerable variation in the number of hours of operation, with a small number of each type of setting open for 10 to 12 hours a day. For Head Start centers and public school programs, these full-day hours of operation indicate that the setting includes a half-day educational program within a longer duration child care program, generally developed to meet the needs of working parents. Children generally attend Head Start centers for 3 hours a day and public preschools for 3½ hours a day. However, consistent with the long hours of operation reported for some of the settings of each of these types, the table indicates that some children attend for up to 10 hours a day. The median hours of attendance for children in other organized programs is 9 hours a day, with a few children attending for as few as 2½ hours and others attending for as many as 12.

Table 6.15 Patterns of operation in settings in the United States

Characteristic	Head Start Centers (*N* = 31)	Public School Preschools (*N* = 24)	Other Organized Programs (*N* = 45)
Number of hours per day setting is open			
Median (hours, minutes)	6	6,15	10,30
Range	4–10	3–12	6–12
Number of hours per day child in setting			
Median	3	3,30	9
Range	3–10	2,30–10	2,30–12
Number of weeks per year setting is open			
Median	37	37	52
Range	32–52	30–52	31–52

Most Head Start centers reported that their program begins between 7:30 and 9:00 in the morning and ends between 3:00 and 5:30 in the afternoon. Public school preschools generally open between 8:00 and 9:30 in the morning, but some settings reported that they open as early as 6:00 a.m. Many of these settings close between 2:00 and 3:00 in the afternoon, but a few indicated that they remain open until 5:30 or 6:00 in the evening. Other organized programs reported opening earlier than the other 2 types of settings, generally between 6:00 and 7:30 in the morning. Nearly all of the other organized programs indicated that their closing times are between 5:00 p.m. and 6:00 p.m. Both Head Start centers and public school preschools are open, on average, for 37 weeks during the year, while other organized programs are generally open the entire year.

GROUP SIZES AND STAFF-CHILD RATIOS

GROUP SIZES

This section of findings provides information about group size and staff-child ratios in the various types of settings across the participating nations. These two sets of findings are presented together because of their interrelatedness. That is, while group size refers to the number of children who remain together most of the time with 1 or more adults, staff-child ratio reflects the combination of group size and the number of adults working with the group.

Group size is sometimes also referred to as the number of children in a classroom, but in some settings several groups of children may share a single large space. Thus, we will use the term "group size" to denote the number of children who remain together most of the time. Items requesting information about group size were included in the Provider Survey questionnaire. However, due to missing data or unclear answers (e.g., when more than 1 group of children may share a single large open area), the decision was made to report the group size information recorded on the observation forms. [*Note:* At the beginning of each observation period, the observer recorded the group size and the number of adults in the room (or section of the room). See Chapter 4 for additional information about the observation instruments and procedures.]

Table 6.16 on the facing page presents the medians and ranges for group size by type of setting across the 15 countries; Figure 6.1 on p. 200 presents these data visually. As noted in Table 6.16, the smallest median group size is found in Finland's child care centers (11 children). The types of settings having median group sizes most similar to Finland's are (1) the 2 preschool settings in Ireland, with medians of 14 children and 15 children, and (2) other organized programs in the United States, with a median of 15 children.

The largest median group size reported is in China's rural kindergartens (35 children). The 2 types of settings with the next largest median group sizes are these:

• Thailand	Educational programs—31 children
• Indonesia	Rural kindergartens—30 children

As Figure 6.1 shows, in general the median group sizes for early childhood settings in Asian and African countries are larger than those for settings in European and North American countries.

It is useful to look at similarities in group sizes for different types of settings within a country. Twelve of the 15 participating countries included 2 or more types of settings in the study, so this discussion will be limited to those 12 countries. In 2 countries (Belgium, Poland) the median group sizes for the various types of settings included in the study are identical (median = 18 for both types of settings in Belgium and in Poland). Also, the median group sizes are similar for the 2 types of settings in Hong Kong (kindergartens = 29, child care centers = 27).

The largest differences in group medians among different types of settings within a country are seen in the following nations.

• Indonesia	Urban kindergartens—20, rural kindergartens—30
• Ireland	Nondisadvantaged and disadvantaged preschools—14, 15, nondisadvantaged and disadvantaged national schools—25, 28
• Spain	Public kindergartens—17, private kindergartens—25

Table 6.16 Group size by type of early childhood setting

Country/Territory	*N*	Median	Range
Belgium (Fr.—Liège Province, Brussels)			
Public nursery schools	28	18	11–60
Private nursery schools	27	18	11–34
China (PRC, 6 provinces)			
Urban kindergartens	216	29	9–58
Rural kindergartens	191	35	8–68
Finland			
Child care centers	66	11	3–29
Greece (urban)			
Public kindergartens	49	17	7–32
Child care centers	22	23	8–52
Hong Kong (SAR)			
Kindergartens	26	29	18–42
Child care centers	25	27	12–41
Indonesia (Java)			
Urban kindergartens	39	20	7–34
Rural kindergartens	28	30	9–50
Ireland			
Nondisadvantaged preschools	25	14	4–22
Disadvantaged preschools	29	15	6–24
Disadvantaged national schools	27	25	15–30
Nondisadvantaged national schools	28	28	15–35
Italy			
Preprimary schools	143	18	9–49
Nigeria (3 states)			
Urban group settings	48	28	12–66
Rural group settings	19	25	10–45
Poland			
Urban preschools	75	18	8–30
Rural preschools	49	18	10–35
Romania			
Urban normal-day kindergartens	24	21	14–35
Rural normal-day kindergartens	21	19	10–27
Urban long-day kindergartens	24	17	11–32
Slovenia			
Kindergartens	44	18	11–23
Spain (Catalonia)			
Public kindergartens	29	17	9–27
Private kindergartens	25	25	14–35
Thailand			
Educational programs	31	31	14–40
Child care centers	22	28	17–49
United States (6 sites)			
Head Start centers	31	17	11–32
Public school preschools	24	18	12–29
Other organized programs	45	15	5–35

Note. The data presented here are derived from the observational data sets collected in the same settings in which the Provider Survey was administered. *N* is the number of settings sampled for each type of setting in a country.

The last column in Table 6.16 presents the ranges for group size by type of setting. The smallest group sizes (minimums) are found in

Finland	Child care centers—3
Ireland	Nondisadvantaged preschools—4
United States	Other organized programs—5

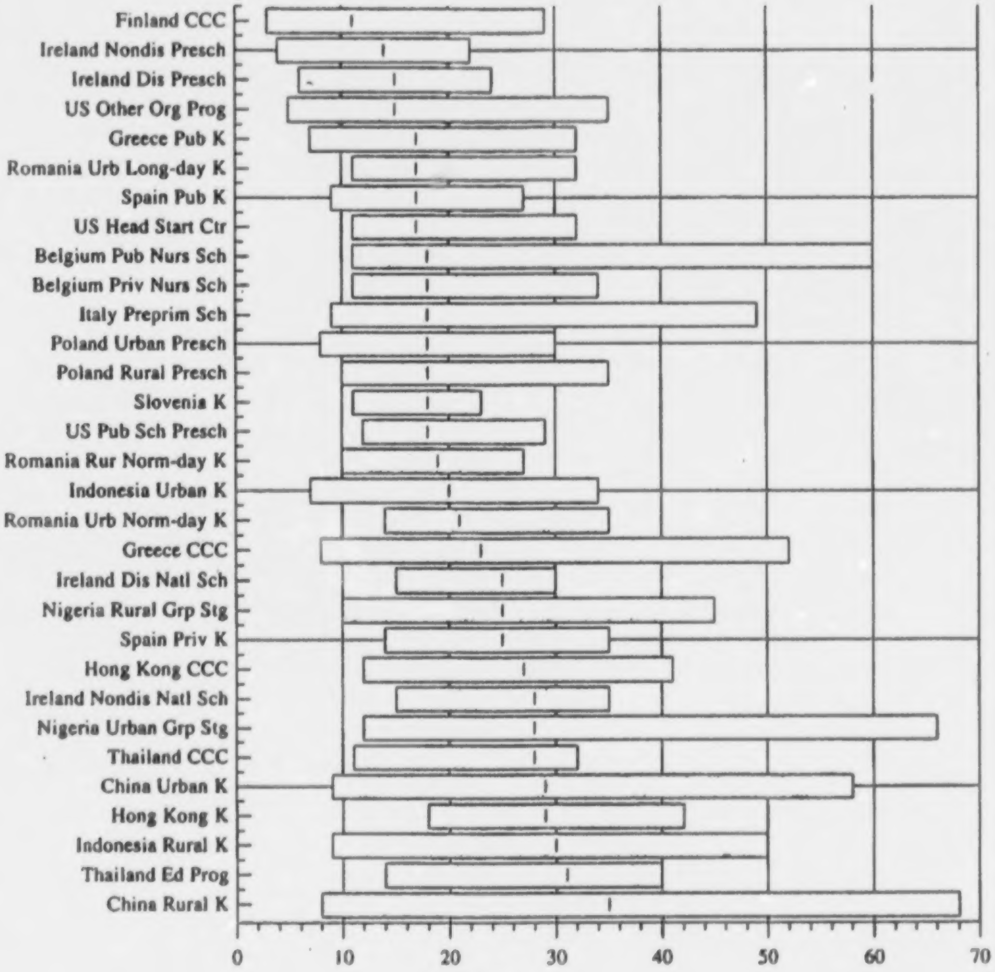


Figure 6.1 Range and median for group sizes by type of early childhood setting

Examination of Table 6.16 reveals that there is greater variation in maximum group sizes (22–68 children) than in minimum group sizes (3–18 children). Types of settings with the largest group sizes are

- Nigeria Urban group settings—66
- China Rural kindergartens—68

STAFF-CHILD RATIOS

As noted at the beginning of this section, the staff-child ratio reflects the combination of group size and the number of adults who work with that group of children. To discuss ratios, we will examine the number of adults who typically work with a group of children in various types of settings.

Table 6.17 (following page) shows, for each type of setting across the 15 countries, the percentage of settings with various numbers of adults working with a group of children in the classroom selected for the study. Like the group size data, the number of adults is taken directly from the forms completed by the observers as they were in these rooms. To assist the reader in interpreting the findings presented in this table, an example is given here using the data for private kindergartens in Spain. In 80% of the rooms included in the study, the observer noted 1 adult working with the group of children during every observation period, while in 12% of the settings, either 1 or 2 adults were noted during the observer's visit. In 4% of the rooms, observers noted between 1 and 4 adults during their visits (i.e., 1, 2, 3, or 4 adults), and in another 4% of the rooms 2 adults were always present.

Combining the group size and the number of adults working with each group (or in each room), researchers calculated a staff-child ratio for each setting. Then the researchers identified the median staff-child ratio and the range of ratios for a specific type of setting. Table 6.18 (p. 203) provides, for each type of setting, the median group size (from Table 6.16), the major categories of numbers of adults working with a group (those 20% or more, from Table 6.17), and the median staff-child ratio.

As Table 6.18 shows, the median group size for Nigerian rural group settings is 25 children, and in 79% of the rooms the observers always noted 1 adult working with the group of children. In the remaining 21% of the rooms, observers noted either 1 or 2 adults present. When the staff-child ratio for each room was calculated, the median staff-child ratio was identified as 1:22 (22 children to 1 staff member). In the public school preschools in the United States (with a median group size of 18 children), observers always noted 3 adults present in 36% of the selected rooms, 2 or 3 adults present in 24% of the rooms, and 1, 2, or 3 adults present in 20% of the rooms. When the staff-child ratios were calculated for this type of setting, the median ratio was identified as 1:6 (6 children to 1 staff member).

Table 6.19 (p. 204) and Figure 6.2 (p. 205) present, for each type of setting, the median staff-child ratio and the range of ratios. The smallest number of children per adult (ratio of 1:6) is found in 4 types of settings:

• Finland	Child care centers
• Ireland	Disadvantaged preschools
• United States	Head Start centers, public school preschools

In addition, there are 2 types of settings with median staff-child ratios of 1:7, 1 type of setting in Ireland and 1 type of setting in the United States. Thus, the 6 types of settings with the smallest number of children per adult are found in 3 countries, Finland, Ireland, and the United States.

At the other extreme, the largest number of children per adult (31) are found in the rural kindergartens of China. A similar median staff-child ratio (1:29) is found in educational programs in Thailand. The median staff-child ratios for the remaining types of settings range from 1:10 to 1:25.

As Table 6.19 shows, there are countries in which the median staff-child ratios are similar across different types of settings. Twelve countries have more than one type of setting, and in 5 of these countries, the median staff-child ratios are either identical or differ only slightly.

• Belgium	Public nursery schools—1:14, private nursery schools—1:13
• Greece	Public kindergartens—1:16, child care centers—1:16
• Indonesia	Urban kindergartens—1:17, rural kindergartens—1:17
• Poland	Urban kindergartens—1:18, rural kindergartens—1:17
• United States	Head Start centers—1:6, public school preschools—1:7, other organized programs—1:7

Table 6.17 Percentage of settings having different numbers of adults in the classroom during the morning

Country/Territory	*N*	Number of Adults									
		1	1–2[a]	1–3	1–4[b]	2	2–3	2–4[b]	3	3–4[b]	Other
Belgium (Fr.—Liège Province, Brussels)											
Public nursery schools	28	64	4			28					4
Private nursery schools	27	53		4		35			4		4
China (PRC, 6 provinces)											
Urban kindergartens	216	21	37	13	7	10	8	2		1	1
Rural kindergartens	191	56	17	10	3	12	1				1
Finland											
Child care centers	66	1	25	30	42		1	1			
Greece (urban)											
Public kindergartens	49	61	16	2	5	12	2				2
Child care centers	22	27	41	4.5	4.5	9	14				
Hong Kong (SAR)											
Kindergartens	26	38	35	4	8	11		4			
Child care centers	25	32	24	4		28	8		4		
Indonesia (Java)											
Urban kindergartens	39	59	18	10		10	3				
Rural kindergartens	28	25	25	7	3.5	29	3.5	3.5	3.5		
Ireland											
Nondisadvantaged preschools	25	12	12		4	44	8		16	4	
Disadvantaged preschools	29	8	8	12.5	8	22	12.5		12.5	12.5	4
Disadvantaged national schools	27	60	24	4		8	4				
Nondisadvantaged national schools	28	76	12		4	8					
Italy											
Preprimary schools	143	17	25	9	1	38	7	1	1		1
Nigeria (3 states)											
Urban group settings	48	39	25	6	8	20	2				
Rural group settings	19	79	21								
Poland											
Urban preschools	75	72	24	3		1					
Rural preschools	49	72	24	4							
Romania											
Urban normal-day kindergartens	24	61	22		11	6					
Rural normal-day kindergartens	21	69	25			6					
Urban long-day kindergartens	24	52	29	5	14						
Slovenia											
Kindergartens	44	36	7			57					
Spain (Catalonia)											
Public kindergartens	29	69	24	7							
Private kindergartens	25	80	12		4	4					
Thailand											
Educational programs	31	78			3	16	3				
Child care centers	22	59	9			32					
United States (6 sites)											
Head Start centers	31			3		20	24	30	3	10	10
Public school preschools	24		4	12	8	12	12	12	8	28	4
Other organized programs	45	13	16	7	16	22	7	13		2	4

Note. The data presented here are derived from the observational data sets collected in the same settings in which the Provider Survey was administered. *N* is the number of settings sampled for each type of setting in a country. [a]1–2 indicates there were either 1 or 2 adults in the room, 1–3 indicates there were 1, 2, or 3 adults in the room, and so forth. [b]Denotes 4 or more as maximum.

Table 6.18 Median group size, percentage of classrooms (≥20%) having different numbers of adults, and median staff-child ratio for each type of setting

			Number of Adults						
Country/Territory	*N*	Median Group Size	1	1–2[a]	1–3[b]	2	2–3[b]	3[b]	Median Staff-Child Ratio
Belgium (Fr.—Liège Province, Brussels)									
Public nursery schools	28	18	64			28			1:14
Private nursery schools	27	18	53			35			1:13
China (PRC, 6 provinces)									
Urban kindergartens	216	29	21	37	20				1:20
Rural kindergartens	191	35	56						1:31
Finland									
Child care centers	66	11		25	72				1:6
Greece (urban)									
Public kindergartens	49	17	61						1:16
Child care centers	22	23	27	41					1:16
Hong Kong (SAR)									
Kindergartens	26	29	38	35					1:21
Child care centers	25	27	32	24		28			1:15
Indonesia (Java)									
Urban kindergartens	39	20	59						1:17
Rural kindergartens	28	30	25	25		29			1:17
Ireland									
Nondisadvantaged preschools	25	14				44		20	1:7
Disadvantaged preschools	29	15			20.5	22		25	1:6
Disadvantaged national schools	27	25	60	24					1:23
Nondisadvantaged national schools	28	28	76						1:25
Italy									
Preprimary schools	143	18		25		38			1:12
Nigeria (3 states)									
Urban group settings	48	28	39	25		20			1:21
Rural group settings	19	25	79	21					1:22
Poland									
Urban preschools	75	18	72	24					1:18
Rural preschools	49	18	72	24					1:17
Romania									
Urban normal-day kindergartens	24	21	61	22					1:20
Rural normal-day kindergartens	21	19	69	25					1:18
Urban long-day kindergartens	24	17	52	29					1:16
Slovenia									
Kindergartens	44	18	36			57			1:10
Spain (Catalonia)									
Public kindergartens	29	17	69	24					1:16
Private kindergartens	25	25	80						1:22
Thailand									
Educational programs	31	31	78						1:29
Child care centers	22	28	59			32			1:25
United States (6 sites)									
Head Start centers	31	17				20	54		1:6
Public school preschools	24	18			20		24	36	1:6
Other organized programs	45	15			23	22	20		1:7

Note. The data presented here are derived from the observational data sets collected in the same settings in which the Provider Survey was administered. *N* is the number of settings sampled for each type of setting in a country. [a]1–2 indicates there were either 1 or 2 adults in the room. [b]Denotes 3 or more as maximum.

Table 6.19 Staff-child ratio by type of early childhood setting

Country/Territory	*N*	Median	Range
Belgium (Fr.—Liège Province, Brussels)			
Public nursery schools	28	1:14	1:9 to 1:22
Private nursery schools	27	1:13	1:8 to 1:24
China (PRC, 6 provinces)			
Urban kindergartens	216	1:20	1:6 to 1:45
Rural kindergartens	191	1:31	1:5 to 1:68
Finland			
Child care centers	66	1:6	1:3 to 1:19
Greece (urban)			
Public kindergartens	49	1:16	1:4 to 1:22
Child care centers	22	1:16	1:6 to 1:52
Hong Kong (SAR)			
Kindergartens	26	1:21	1:13 to 1:33
Child care centers	25	1:15	1:11 to 1:35
Indonesia (Java)			
Urban kindergartens	39	1:17	1:6 to 1:34
Rural kindergartens	28	1:17	1:9 to 1:45
Ireland			
Nondisadvantaged preschools	25	1:7	1:3 to 1:11
Disadvantaged preschools	29	1:6	1:3 to 1:15
Disadvantaged national schools	27	1:23	1:12 to 1:30
Nondisadvantaged national schools	28	1:25	1:15 to 1:34
Italy			
Preprimary schools	143	1:12	1:4 to 1:29
Nigeria (3 states)			
Urban group settings	48	1:21	1:7 to 1:60
Rural group settings	19	1:22	1:8 to 1:45
Poland			
Urban preschools	75	1:18	1:9 to 1:30
Rural preschools	49	1:17	1:10 to 1:35
Romania			
Urban normal-day kindergartens	24	1:20	1:10 to 1:35
Rural normal-day kindergartens	21	1:18	1:9 to 1:26
Urban long-day kindergartens	24	1:16	1:7 to 1:28
Slovenia			
Kindergartens	44	1:10	1:7 to 1:22
Spain (Catalonia)			
Public kindergartens	29	1:16	1:10 to 1:27
Private kindergartens	25	1:22	1:13 to 1:35
Thailand			
Educational programs	31	1:29	1:14 to 1:40
Child care centers	22	1:25	1:9 to 1:42
United States (6 sites)			
Head Start centers	31	1:6	1:4 to 1:10
Public school preschools	24	1:6	1:3 to 1:14
Other organized programs	45	1:7	1:4 to 1:14

Note. The data presented here are derived from the observational data sets collected in the same settings in which the Provider Survey was administered. *N* is the number of settings sampled for each type of setting in a country.

Among the 12 countries that included multiple types of settings in the study, there are 2 countries in which the median staff-child ratios across the different types of settings differ by more than 10 children per adult.

- China Urban kindergartens—1:20, rural kindergartens—1:31
- Ireland 2 types of preschools—1:7, 1:6, 2 types of national schools—1:23, 1:25

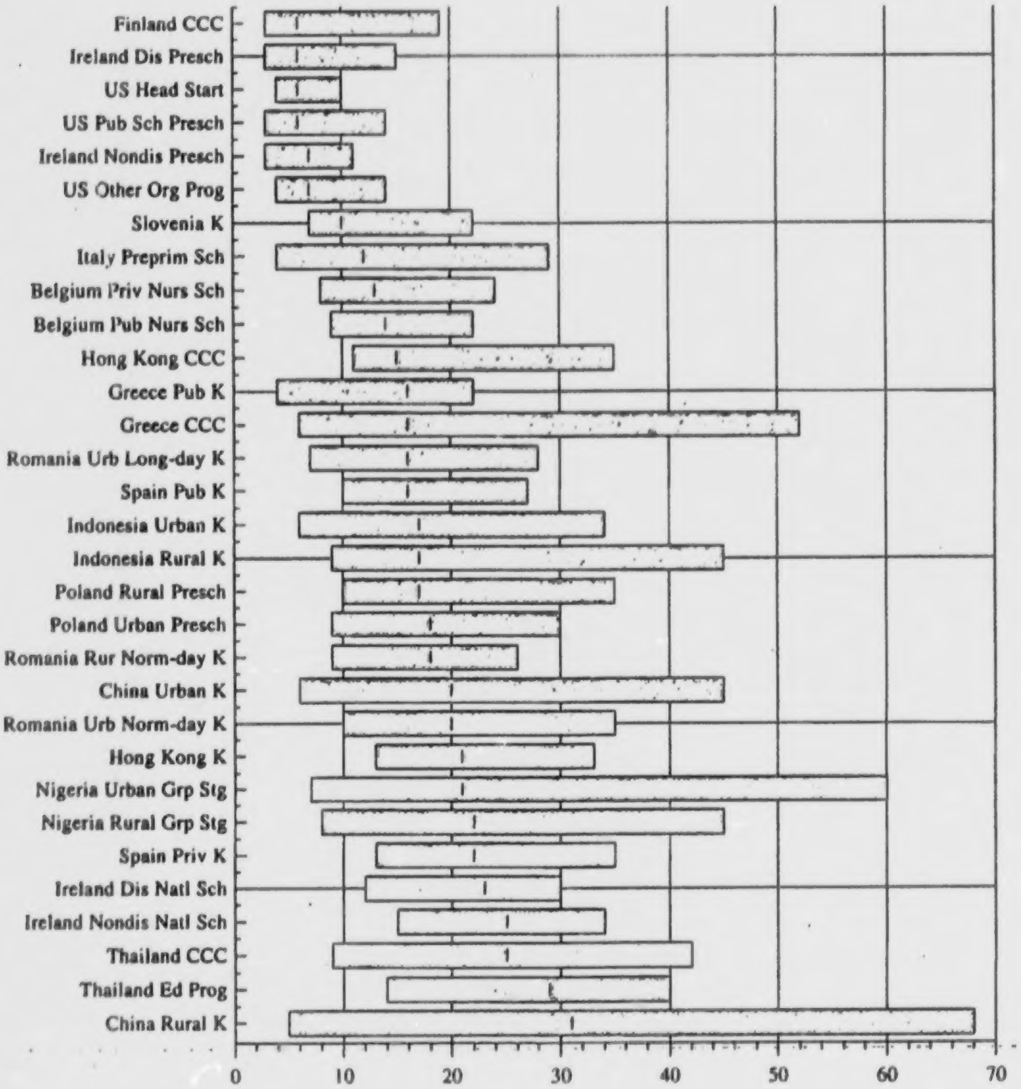


Figure 6.2 Range and median for staff-child ratios by type of early childhood setting

Looking at the ranges of staff-child ratios (the minimums and maximums) in Table 6.19 provides interesting information. For example, in 3 countries there are settings in which there is a group having only 3 children per adult:

• Finland	Child care centers
• Ireland	Both types of preschools
• United States	Public school preschools

At the other extreme, a group of 50 or more children with 1 adult was observed in 3 types of settings located in countries on 3 different continents:

• China	Rural kindergartens—1:68
• Greece	Child care centers—1:52
• Nigeria	Urban group settings—1:60

DISCUSSION

PATTERNS OF OPERATION

When one looks at the information regarding patterns of operation from the national profiles and the findings in this chapter, it is clear that in several countries there is an attempt to be responsive to parents' needs for services. The introduction to this chapter included examples of this responsiveness in 2 countries, China and Slovenia. Here are four other examples:

• Finland	*According to the Day Care Law, day care centers and family day care homes offer services year-round according to the needs of parents. . . . Day care centers also offer special services for children whose parents work evenings or nights* (Chapter 3, p. 65).
• Nigeria	*Some group settings located in urban areas and patronized by working mothers open earlier and close much later in order to accommodate parents' schedules* (Chapter 3, p. 87).
• Poland	*Depending on parental needs, a number of preschools are open during holidays. . . . The number of hours per day a particular preschool operates depends on parental needs* (Chapter 3, pp. 91–92).
• Thailand	*Government kindergartens are open 6½ hours per day, from 8:30 a.m. to 3:00 p.m. Times of operation are about the same in other types of programs, with the exception of private schools and child care centers, where hours are more flexible based on the needs of parents* (Chapter 3, p. 103).

Thus, in nearly half of the national profiles (6 of 14), the national project coordinators have specifically noted how the patterns of operation of early childhood settings in their countries accommodate the needs of the parents, especially those parents participating in the labor force. In general, the findings presented in this section support the national profile information; many types of settings across these 6 countries are open 10 hours per day or longer, and some types of settings are open on weekends. Note that these 6 countries are located in Asia (China, Thailand), Africa (Nigeria), eastern Europe (Poland, Slovenia), and western Europe (Finland), suggesting that responsiveness to the needs of working parents by early childhood providers is not limited to a single part of the world.

A useful case study of the relationship between patterns of operation and parents' participation in the labor force is illustrated in the findings for Greece. Greece included 2 types of early childhood settings in the present study: (1) public kindergartens, which are open for 3½ hours per day for 5 days a week, and (2) child care centers, which are generally open for 9 hours per day with children present, on average, for 8 hours of that time. Looking at the percentage of mothers in the labor force for the samples of families with children attending these 2 types of settings (not reported in this monograph), we see that for families using public kindergartens, 33% of mothers are employed; the corresponding figure for families using child care centers is 94%. These data suggest a strong relationship between the type of early childhood setting used and participation of mothers in the labor force.

GROUP SIZES AND STAFF-CHILD RATIOS

The importance given to these structural characteristics in countries around the world is evident from a review of the national profiles. In a majority of countries, government ministries or other sponsoring agencies have issued regulations (or, at a minimum, have provided recommendations) regarding group size and/or staff-child ratio. This might be somewhat surprising when one considers (1) the high cost of training large numbers of preprimary teachers and of salary payments to early childhood teachers, and (2) the fact that little, if any, research has been conducted in countries other than the United States to suggest that these structural characteristics are related to specific processes within the settings or to specific outcomes in children.

A comparison of the observed group sizes and staff-child ratios found in the present study to the group sizes and ratios

This group-time photograph illustrates the group size and staff-child ratio typically found in Greek settings.

A small group size is common in day care centers in Finland.

This setting in Thailand illustrates the lower end of the range for group size in Thailand centers.

cited in the national profiles shows that in most countries, both the median group size and the median staff-child ratio meet the levels mandated or recommended. This indicates that in at least 50% of the classrooms selected for the study, the group sizes and staff-child ratios are consistent with the standards established. However, as the maximums (found in the range columns of Tables 6.16 and 6.19) for both of these variables indicate, in each country there are programs that do not meet these standards.

While the national profiles indicate the importance of these two characteristics to administrators and policymakers, a view from the perspective of parents has been provided by a member of the national project staff in China. She noted that "Chinese parents consider the quality of the equipment and materials and teacher characteristics (e.g., years of training, years of experience) as the most important structural characteristics of a setting/classroom and generally would select an early childhood program based on these two characteristics rather than on the staff-child ratio" (personal communication, December 1999).

Finally, since the findings show that a large percentage of rooms in many countries have more than 1 adult, it is useful to explore the roles of the "extra" adults in the rooms. In most types of settings included in the study, the information from the national profiles suggest that these adults are either assistant teachers, teacher aides, or child care workers. For example, the Finnish national profile states that *each day care center has a director along with one kindergarten teacher and two care persons for each group of 3- to 6-year-olds* (Chapter 3, p. 65). The Thai national profile notes that *some government and private kindergartens hire helpers to help teachers look after the children* (Chapter 3, p. 102). The United States is unique in that, especially in Head Start centers and public school preschools, there are likely to be parent volunteers in the classroom. Since teacher aides are also commonly employed in classrooms in these types of settings, some of the rooms contain a lead teacher, a teacher aide, and a parent volunteer.

SUMMARY STATEMENTS

- **In all participating nations, early childhood settings are generally open Monday through Friday. In 3 Asian countries, a majority of settings are also open on Saturdays (both types of settings in China and Indonesia and child care centers in Hong Kong).**
- **In most nations, 4-year-old children generally attend early childhood programs for 3 to 10 hours during a typical day.**
- **In most countries, early childhood settings are open for 9 to 12 months (i.e., 38 to 52 weeks).**
- **The group size for early childhood programs for 17 of the 31 types of settings in the study ranges from 11 to 20 children; most of the remaining types of settings have between 21 and 30 children per group. The larger group sizes are primarily found in early childhood settings in Asian and African countries.**
- **In 16 of the 31 types of settings across the countries, the median staff-child ratio is between 1:10 and 1:20 (i.e., between 10 children and 20 children per adult). Of the remaining 14 types of settings, 6 types average less than 10 children per adult, and 9 types average more than 20 children per adult.**

VII

PHYSICAL CHARACTERISTICS OF EARLY CHILDHOOD SETTINGS

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Young children's learning and development are influenced by their interactions with their environment; it is therefore useful to examine the physical characteristics of the early childhood settings in which children spend their time. This chapter presents information about the following physical characteristics of the 31 types of early childhood settings across the 15 participating countries.

- Number and characteristics of rooms used by a group of children
- Amount of space used by a group of children and average space per child
- Availability and characteristics of outdoor play areas and availability of indoor play areas
- Availability of equipment and materials

While reading through this chapter, keep in mind that the physical characteristics of settings are influenced by both the cultural context of a setting (e.g., a preschool run by a religious organization in Indonesia) and the monetary resources available.

As noted in the literature review, the amount and organization of physical space are related to young children's social behaviors as well as to the types of play in which they engage. For example, there is some evidence that less indoor space per child may be associated with negative behavioral effects (Ramsey & Reid, 1988). Also, in a South African study Liddell and Kruger (1987) found that less indoor space per child (i.e., a high-density setting) was related to lower amounts of cooperative interaction and social activities and higher amounts of unoccupied time.

While the literature review described types of outdoor play spaces, the findings in this chapter will present more basic information on the availability of "any type" of outdoor play space, size of this play space, and frequency of use of this space by children in the setting. We will also examine the availability of indoor play areas.

Children's development is influenced not only by the amount and type of play space available but also by the type of equipment and materials they have access to. These items provide opportunities for children to learn specific skills (e.g., gross-motor skills) and to develop an appreciation for the world around them (e.g., music). To determine the availability of equipment and materials in the settings in this study, the Provider Survey included a list of over 100 types of equipment and materials and asked respondents to indicate which items were present in their settings. This list included items that would generally be purchased (or donated), such as books or scissors, but also included items from children's natural environment (e.g., rocks, plants). In the literature review, items in this latter category were identified by Woodhead (1996) as ones that could be provided at minimal or no cost to teachers or programs. The information regarding equipment and materials allows us to examine the availability of different categories of items (e.g., dramatic play materials, science/nature materials) for different settings in various regions of the world.

NUMBER AND CHARACTERISTICS OF ROOMS USED BY A GROUP OF CHILDREN IN EARLY CHILDHOOD SETTINGS

The first set of data presented in this section comes from responses to the Provider Survey question *How many rooms does this group of children use on a regular basis?* (The respondents did not include such rooms as bathrooms, toilets, and kitchens.) The next set of findings provides information about the characteristics of these rooms and is based on responses to the following questions:

(1) *Is the setting furnished and/or structured for use by children?*

(2) *Is there at least one separate room available for adult use only?*

NUMBER OF ROOMS USED

Table 7.1 (facing page) and Figure 7.1 (p. 212) present the number of rooms used by a group of children for 25 types of settings in 13 of the 15 participating countries. The figure clearly illustrates that in most types of settings across the 13 countries, a group of children typically uses either 1 or 2 rooms.

If we look at the median number of rooms used by a group of children across the 25 types of settings, we note that Finland's child care centers reported the largest median number of rooms used by a group (4 rooms). At the other extreme, for 10 different types of settings in 7 countries, the median is 1 room. Eleven types of settings reported that a group of children generally uses 2 rooms, which means that in 21 of the 25 types of settings (84%) a group of children typically uses 1 or 2 rooms.

The ranges for rooms used by a group of children, as shown in Table 7.1, indicate that in 24 of the 25 types of settings reporting findings the minimum number of rooms is 1. The exception is Finland's child care centers, for which the minimum number of rooms used is 2. There is much greater variation in the maximum number of rooms used. The most frequent maximum number is 3, with 8 types of settings across 6 countries reporting this maximum. It is interesting to note that the narrowest range was reported by Romania's rural normal-day kindergartens, in which each of the 21

Table 7.1 Number of rooms used by a group of children

Country/Territory	*N*	Median	Range
Belgium (Fr. —Liège Province, Brussels)			
Public nursery schools	28	NI	NI
Private nursery schools	27	NI	NI
China (PRC, 6 provinces)			
Urban kindergartens	216	2	1–3
Rural kindergartens	191	1	1–3
Finland			
Child care centers	66	4	2–8
Greece (urban)			
Public kindergartens*	49	1	1–3
Child care centers	22	2	1–5
Hong Kong (SAR)			
Kindergartens	26	2	1–9
Child care centers	25	2	1–6
Indonesia (Java)			
Urban kindergartens	39	2	1–5
Rural kindergartens	28	1	1–3
Ireland			
Nondisadvantaged preschools	25	NI	NI
Disadvantaged preschools	29	NI	NI
Disadvantaged national schools	27	NI	NI
Nondisadvantaged national schools	28	NI	NI
Italy			
Preprimary schools	143	3	1–9
Nigeria (3 states)			
Urban group settings	47	1	1–3
Rural group settings	18	1	1–5
Poland			
Urban preschools	75	1	1–4
Rural preschools	49	1	1–5
Romania			
Urban normal-day kindergartens	24	2	1–3
Rural normal-day kindergartens	21	1	1–2
Urban long-day kindergartens	24	3	1–4
Slovenia			
Kindergartens*	44	2	1–5
Spain (Catalonia)			
Public kindergartens	29	2	1–7
Private kindergartens	25	2	1–5
Thailand			
Educational programs	31	2	1–4
Child care centers	22	2	1–4
United States (6 sites)			
Head Start centers*	31	1	1–3
Public school preschools	24	1	1–3
Other organized programs*	45	3	1–10

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

settings has either 1 or 2 rooms (minimum = 1, maximum = 2). Finally, 3 types of settings across 4 countries (Finland, Hong Kong, Italy, United States) report that a group of children uses 8 or more rooms.

In most countries (8), the various types of settings within a country either have equal numbers of rooms used by a group or the numbers differ by only 1 room (e.g., Indonesia—urban kindergartens = 2; rural kindergartens = 1). In 2 countries (Romania, United States) the medians reported

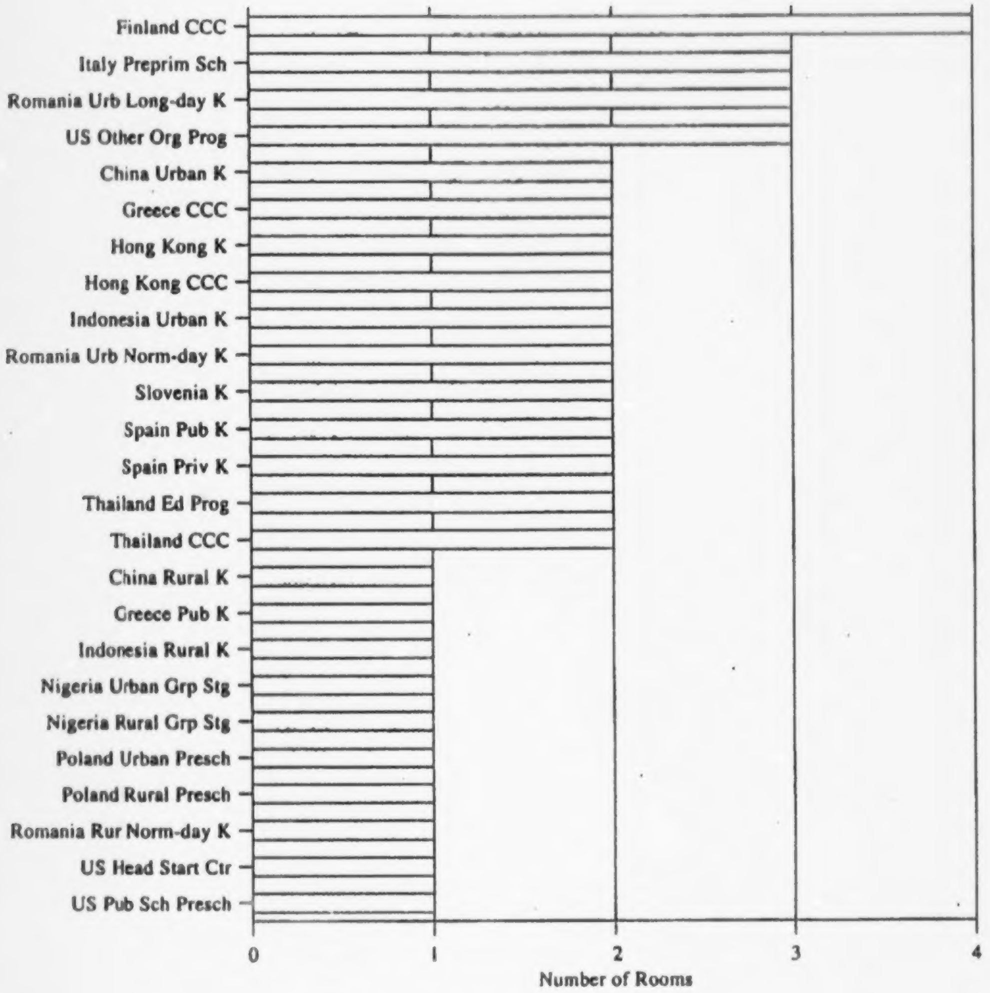


Figure 7.1 Median number of rooms used by a group of children

by the various types of settings differ by 2 (e.g., Romania—urban long-day kindergartens = 3; rural normal-day kindergartens = 1).

CHARACTERISTICS OF ROOMS IN EARLY CHILDHOOD SETTINGS

Child-structured rooms

In nearly all cultures, parents visit their children's early childhood and elementary classrooms to meet with their children's teachers. They sometimes find themselves sitting on child-sized chairs and become aware, possibly for the first time, of how uncomfortable furniture sized for children can be for adults. The reverse situation occurs when only adult-sized furniture is available in an early childhood setting. Children are uncomfortable and often find it difficult to work or play (e.g., construct

Italy

Slovenia

Poland

Indonesia

Most settings have rooms structured especially for children.

puzzles, do art projects) when they have to use adult-sized chairs and tables. This section presents information about the availability of child-sized furniture in various types of early childhood settings.

Table 7.2 (below) and Figure 7.2 (facing page) present findings for all 31 types of settings and show that a large percentage of nearly all types of settings are furnished for child use. In fact, 90% or more of

Table 7.2 Settings with a room structured for children by type of early childhood setting

Country/Territory	*N*	% Settings With a Room Structured for Child Use
Belgium (Fr.—Liège Province, Brussels)		
Public nursery schools	28	82
Private nursery schools	27	82
China (PRC, 6 provinces)		
Urban kindergartens	216	95
Rural kindergartens	191	89
Finland		
Child care centers	66	97
Greece (urban)		
Public kindergartens*	49	95
Child care centers	22	100
Hong Kong (SAR)		
Kindergartens	26	100
Child care centers	25	100
Indonesia (Java)		
Urban kindergartens	39	97
Rural kindergartens	28	74
Ireland		
Nondisadvantaged preschools	25	96
Disadvantaged preschools	29	91
Disadvantaged national schools	27	85
Nondisadvantaged national schools	28	80
Italy		
Preprimary schools	143	97
Nigeria (3 states)		
Urban group settings	47	85
Rural group settings	18	69
Poland		
Urban preschools	75	99
Rural preschools	49	98
Romania		
Urban normal-day kindergartens	24	100
Rural normal-day kindergartens	21	100
Urban long-day kindergartens	24	100
Slovenia		
Kindergartens*	44	100
Spain (Catalonia)		
Public kindergartens	29	100
Private kindergartens	25	88
Thailand		
Educational programs	31	94
Child care centers	22	82
United States (6 sites)		
Head Start centers*	31	100
Public school preschools	24	91
Other organized programs*	45	97

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

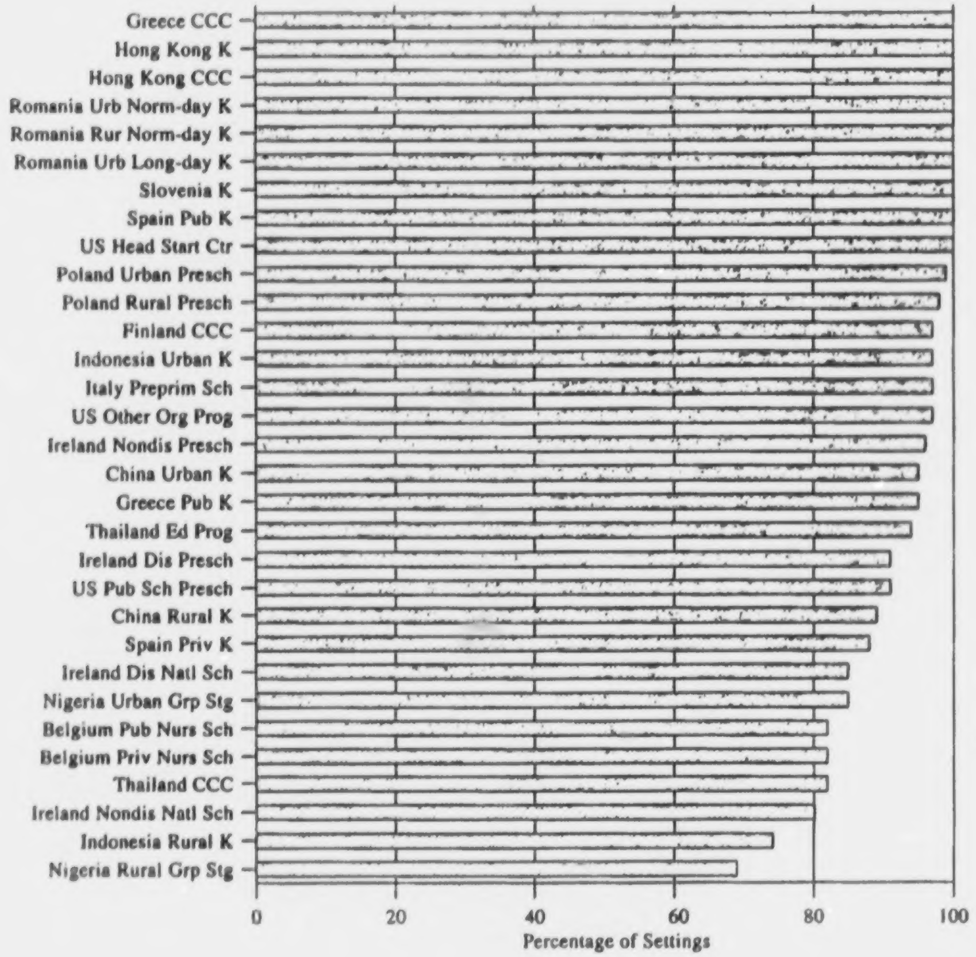


Figure 7.2 Percentage of settings with rooms structured for children

21 different types of settings are structured for child use; percentages range between 80% and 89% for an additional 8 types. Respondents in only 2 types of settings report lower percentages for this variable:

- Indonesia Rural kindergartens—74%
- Nigeria Rural group settings—69%

Even in these 2 types of settings, two thirds or more are furnished for child use. Thus, the general picture that emerges is one of settings designed for use specifically by young children.

Adult-use rooms

Katz (1996) has written about the importance of considering the quality of an early childhood setting from the perspective of all parties involved, including children, staff, and parents. While the availability of child-structured rooms would be considered one component of a "good" setting for children, the availability of a room for adult use might be considered a component of a "good" setting for staff members. This adult-use room may be used for such activities as meetings with parents, staff training, or personal breaks. The findings reported in this section are based on responses to this Provider Survey item: *Is there at least one separate room available for adult use only?*

As the findings in Table 7.3 (facing page) and Figure 7.3 (p. 218) indicate, the availability of an adult-use room varies greatly among different types of settings. In 15 of the 31 different types of settings, 80% or more of the respondents indicated that an adult-use room is available. These are listed below.

• Greece	Child care centers—87%
• Hong Kong	Child care centers—91%
• Indonesia	Urban kindergartens—89%
• Ireland	Both types of national schools—85% each
• Poland	Urban and rural preschools—99% and 91%
• Romania	Urban normal-day and long-day kindergartens—88% and 100%
• Slovenia	Kindergartens—82%
• Spain	Public and private kindergartens—86% and 92%
• United States	All 3 types of settings—90% to 96%

Thus, the availability of adult-use rooms does not seem to be limited to a particular geographical region or type of setting (i.e., ones with an educational or care emphasis).

The findings for low availability of adult-use rooms reveal that in 10 types of settings across 8 countries, less than 50% of the respondents reported having such rooms. These types of settings and their countries are listed here.

• Belgium	Public and private nursery schools—18% and 33%
• China	Urban and rural kindergartens—32% and 27%
• Greece	Public kindergartens—49%
• Ireland	Nondisadvantaged preschools—44%
• Italy	Preprimary schools—44%
• Nigeria	Urban group settings—41%
• Romania	Rural normal-day kindergartens—48%
• Thailand	Child care centers—9%

It is interesting to note that for 3 countries (Greece, Ireland, Romania) different types of settings appear on the two lists. This indicates that within each country there is a type of setting in which most settings (80% or more) have an adult-use room, but other types in which only a minority have such a room available.

SPACE USAGE AND SPACE PER CHILD IN EARLY CHILDHOOD SETTINGS

The previous section presented information about the number of rooms available and used by a group of children in different settings in various nations. However, this does not provide a complete

Table 7.3 Settings with a room for adult use by type of early childhood setting

Country/Territory	*N*	% Settings With a Room for Adult Use
Belgium (Fr.—Liège Province, Brussels)		
Public nursery schools	28	18
Private nursery schools	27	33
China (PRC, 6 provinces)		
Urban kindergartens	216	32
Rural kindergartens	191	27
Finland		
Child care centers	66	77
Greece (urban)		
Public kindergartens°	49	49
Child care centers	22	87
Hong Kong (SAR)		
Kindergartens	26	70
Child care centers	25	91
Indonesia (Java)		
Urban kindergartens	39	89
Rural kindergartens	28	56
Ireland		
Nondisadvantaged preschools	25	44
Disadvantaged preschools	29	57
Disadvantaged national schools	27	85
Nondisadvantaged national schools	28	85
Italy		
Preprimary schools	143	44
Nigeria (3 states)		
Urban group settings	47	41
Rural group settings	18	53
Poland		
Urban preschools	75	99
Rural preschools	49	91
Romania		
Urban normal-day kindergartens	24	88
Rural normal-day kindergartens	21	48
Urban long-day kindergartens	24	100
Slovenia		
Kindergartens°	44	82
Spain (Catalonia)		
Public kindergartens	29	86
Private kindergartens	25	92
Thailand		
Educational programs	31	65
Child care centers	22	9
United States (6 sites)		
Head Start centers°	31	96
Public school preschools	24	90
Other organized programs°	45	96

Note. N is the number of settings sampled for each type of setting in a country. The symbol ° indicates a type of setting with less than 80% of the data available.

picture of the amount of space available to children. For instance, a group of children in one setting may use a large area in just a single room while a group of children in another setting may have several small rooms available. The Provider Survey included questions about the amount of space used by a group of children in an early childhood setting. When combined with the average number of children per classroom, these data provide information about the average space per child in various

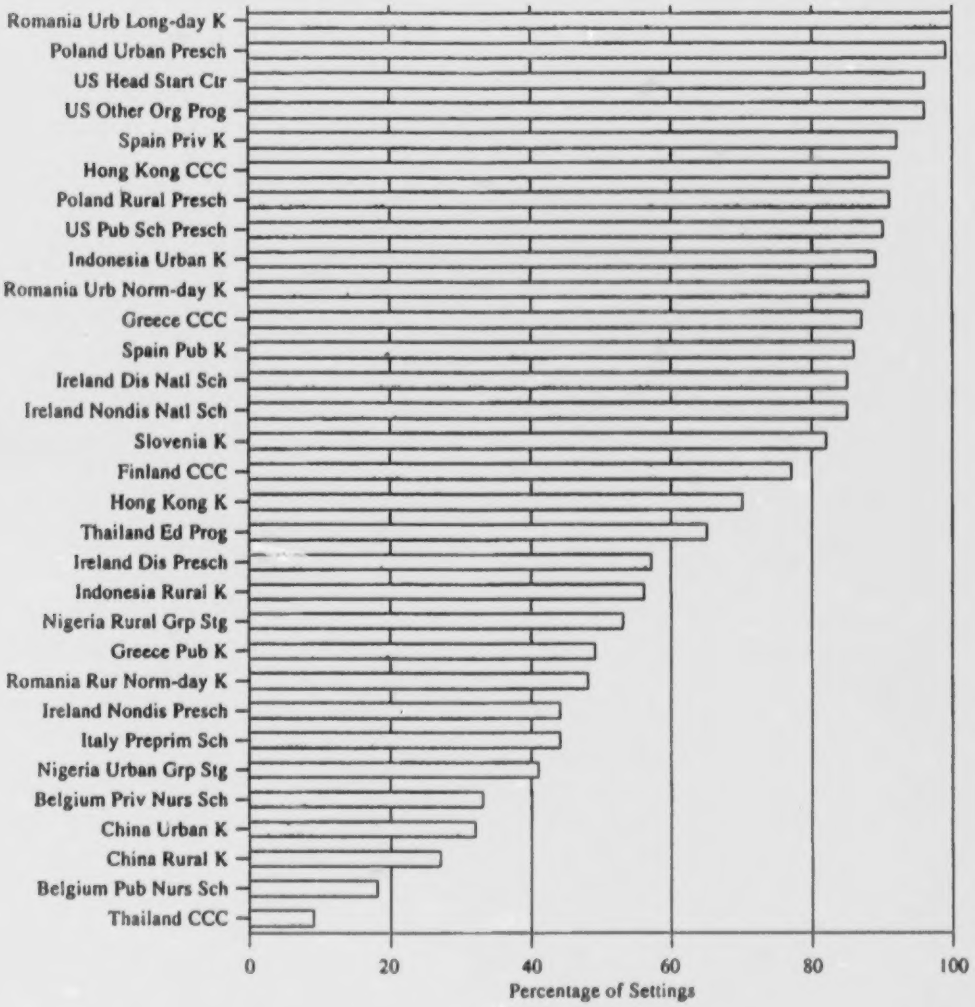


Figure 7.3 Percentage of settings with a room available for adult use

types of early childhood settings. The findings in this section are reported in square meters (m²). It should be noted that the area in a room that is 10 meters by 10 meters (i.e., 100 m²) is equivalent to an area that is 32.81 feet by 32.81 feet, or 1,076.5 square feet.

AMOUNT OF SPACE USED

The middle two columns in Table 7.4 (facing page) present the findings for amount of space used by a group of children in different types of settings in 13 of the 15 participating countries. The figures in the median column indicate that child care centers in Finland reported having the largest amount of space (100 m²). At the other extreme, the median space used by a group of children in

Table 7.4 Amount of space and space per child by type of early childhood setting

Country/Territory	*N*	Amount of Space Median	Range	Estimated Space per Child (m^2)[a]
Belgium (Fr.—Liège Province, Brussels)				
Public nursery schools	28	NI	NI	NI
Private nursery schools	27	NI	NI	NI
China (PRC, 6 provinces)				
Urban kindergartens	216	36	10–97	1.2
Rural kindergartens	191	42	9–100	1.2
Finland				
Child care centers	66	100	20–393	9.1
Greece (urban)				
Public kindergartens*	49	50	12–120	2.9
Child care centers	22	80	24–400	3.5
Hong Kong (SAR)				
Kindergartens	26	36	23–66	1.2
Child care centers	25	40	30–120	1.5
Indonesia (Java)				
Urban kindergartens	39	44	9–348	2.2
Rural kindergartens	28	49	9–700	1.6
Ireland				
Nondisadvantaged preschools	25	NI	NI	NI
Disadvantaged preschools	29	NI	NI	NI
Disadvantaged national schools	27	NI	NI	NI
Nondisadvantaged national schools	28	NI	NI	NI
Italy				
Preprimary schools	143	39	16–299	2.2
Nigeria (3 states)				
Urban group settings	48	78	22–144	2.8
Rural group settings	19	71	20–144	2.8
Poland				
Urban preschools	75	65	19–180	3.6
Rural preschools	49	61	15–130	3.4
Romania				
Urban normal-day kindergartens	24	35	7–90	1.7
Rural normal-day kindergartens	21	28	12–72	1.5
Urban long-day kindergartens	24	63	14–98	3.7
Slovenia				
Kindergartens*	44	42	20–87	2.3
Spain (Catalonia)				
Public kindergartens	29	60	30–285	3.5
Private kindergartens	25	53	40–300	2.1
Thailand				
Educational programs	31	54	20–236	1.7
Child care centers	22	72	24–144	2.6
United States (6 sites)				
Head Start centers*	31	60	56–142	3.5
Public school preschools	24	66	59–135	3.7
Other organized programs*	45	80	36–216	5.3

Note. The class size and estimated space-per-child data are derived from the Management of Time (MOT) observational data collected in the same settings as the Provider Survey; space used is derived from the Provider Survey data. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. [a]Estimated space per child was determined by dividing the median space used by the median class size.

Romania's rural normal-day kindergartens is 28 m^2. The remaining 23 medians are nearly equally spread over a range of 30 m^2 to 80 m^2.

The figures in the range column reveal that for some types of settings there is considerable variability in the amount of space used by a group of children, but for other types of settings variability is relatively small. An example of the former is Indonesia, in which one group of children uses 9 m² of space and another group uses 700 m² of space. Much narrower ranges are seen in countries such as China (10 m²–97 m² and 9 m²–100 m²) and Slovenia (20 m²–87 m²). Across the 25 different types of settings reporting ranges for space, more than half have a minimum amount of space between 10 m² and 30 m²; 40% have a setting with more than 150 m².

AMOUNT OF SPACE PER CHILD

In addition to looking at the total amount of space used by a group of children, it is useful to examine the amount of space per child. To obtain an estimate of space per child for each type of setting, the median space used was divided by the median number of children in the setting (see footnote in Table 7.4). For example, the median amount of space for a group of children in a preprimary school in Italy is 39 m², and the median number of children in a group for this type of setting is 18. Thus, the estimated space per child for Italian preprimary schools is 39/18 = 2.2 m². The same method of calculation for Head Start centers in the United States yields an estimated space per child of 60 m²/17, or 3.5 m².

Figure 7.4 (facing page) and the final column in Table 7.4 show the amount of space per child across different types of settings. The largest amount was reported by child care centers in Finland (9.1 m²). Other organized programs in the United States also reported a fairly large amount of space per child (5.3 m²).

Eight of the 25 types of settings reported less than 2 m² of space per child. Six of these 8 are located in developing countries: urban and rural kindergartens in China, urban and rural normal-day kindergartens in Romania, rural kindergartens in Indonesia, and educational programs in Thailand. The remaining 2 types of settings are in Hong Kong, a location in which space for any purpose is limited. It is interesting to note that settings in developing countries also reported having some of the largest amount of space per child. That is, urban long-day kindergartens in Romania and urban preschools in Poland are among the top five lines in Figure 7.4. Fifteen of the 25 (60%) types of settings reported having between 2 m² and 4 m² of space per child.

CHARACTERISTICS OF PLAY AREAS IN EARLY CHILDHOOD SETTINGS

Play areas, especially outdoor play areas, provide opportunities for children to develop in several ways: physically, as they run, climb, and jump; socially, as they play cooperatively with other children; and cognitively, as they invent games with rules to be followed. Thus, it is useful to examine information about the availability of play areas in early childhood settings, and about the location, frequency of use, and size of these play areas. Questions soliciting this information were included on the Provider Survey; directors' responses to these questions provide the findings reported in this section.

Each director was first asked *Do you have an outdoor play area?* If the director answered yes, the following questions were asked.

(1) *Is it on the property? If not, is it within walking distance?*

(2) *Who else shares the play area?*

(3) *What is the approximate size of the play area?*

(4) *Does the play area have a roof?*

(5) *How often do you use the play area?*

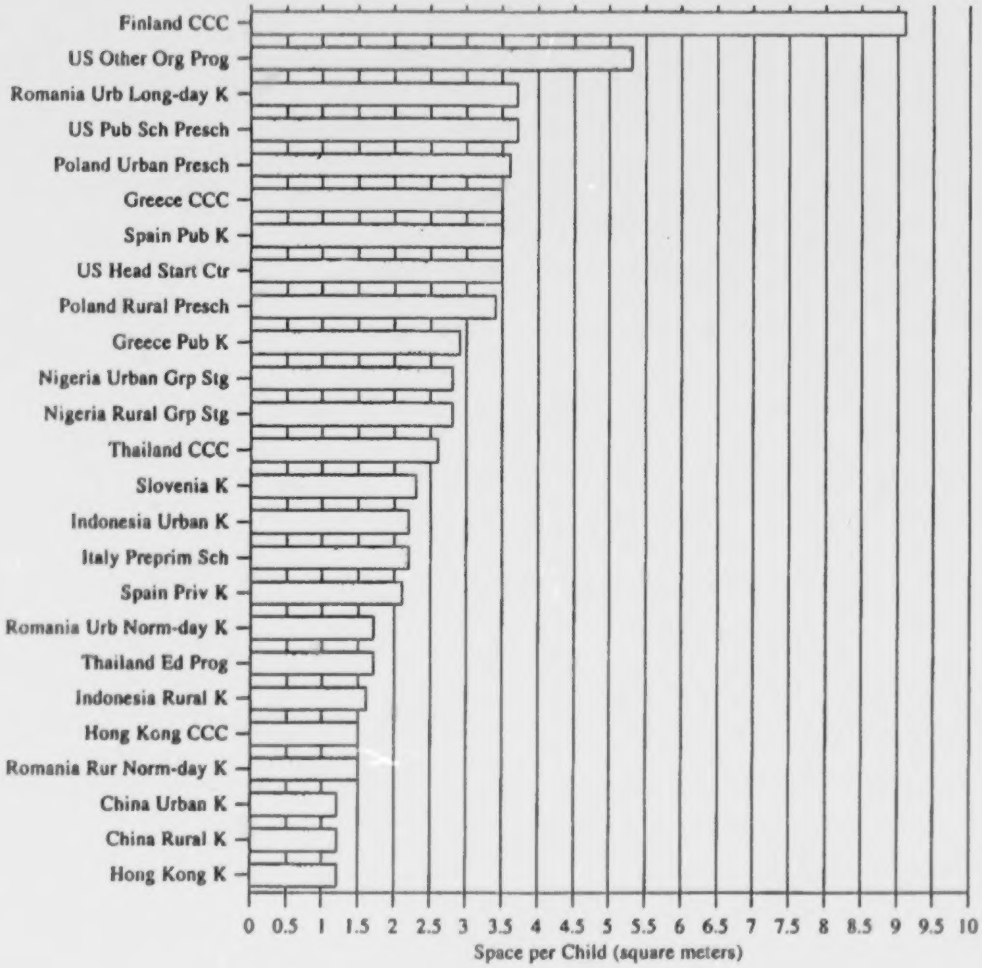


Figure 7.4 Estimated space per child by type of setting

Directors' responses to the initial question and to follow-up questions (1), (3), and (5) are presented here. Because of various problems with the data, responses to follow-up questions (2) and (4) are not included.

A question about the presence of an indoor play area was also included in the Provider Survey; directors' responses to this question provide the final set of data presented in this section.

AVAILABILITY OF OUTDOOR PLAY AREAS

Table 7.5 on the following page presents, by type of setting, the percentages of settings that have outdoor play areas. All 31 types of settings included in the study reported this data. The findings in Table 7.5 indicate that a high percentage of settings have outdoor play areas. For 14 types of settings, 100% reported having an outdoor play area; 90% to 99% of 10 other types of settings

Table 7.5 Outdoor areas available for play by type of early childhood setting

Country/Territory	*N*	*N* Reporting Data	% With Outdoor Play Area	*N* With Outdoor Play Area
Belgium (Fr.—Liège Province, Brussels)				
Public nursery schools	28	28	100	28
Private nursery schools	27	27	100	27
China (PRC, 6 provinces)				
Urban kindergartens	216	216	95	205
Rural kindergartens	191	191	97	186
Finland				
Child care centers	66	61	100	61
Greece (urban)				
Public kindergartens*	49	37	92	34
Child care centers	22	22	78	17
Hong Kong (SAR)				
Kindergartens	26	22	82	18
Child care centers	25	24	83	20
Indonesia (Java)				
Urban kindergartens	39	37	97	36
Rural kindergartens	28	27	85	23
Ireland				
Nondisadvantaged preschools	25	23	91	21
Disadvantaged preschools	29	24	63	15
Disadvantaged national schools	27	26	100	26
Nondisadvantaged national schools	28	26	100	26
Italy				
Preprimary schools	143	143	89	127
Nigeria (3 states)				
Urban group settings	47	46	91	42
Rural group settings	18	18	89	16
Poland				
Urban preschools	75	75	100	78
Rural preschools	49	46	98	45
Romania				
Urban normal-day kindergartens	24	24	100	24
Rural normal-day kindergartens	21	21	100	21
Urban long-day kindergartens	24	24	100	24
Slovenia				
Kindergartens*	44	33	97	32
Spain (Catalonia)				
Public kindergartens	29	28	100	28
Private kindergartens	25	24	92	22
Thailand				
Educational programs	31	31	100	31
Child care centers	22	22	91	20
United States (6 sites)				
Head Start centers*	31	22	100	22
Public school preschools	24	21	100	21
Other organized programs*	45	30	100	30

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

also reported having one. There are two types of settings in which less than 80% reported having an outdoor play area:

- Greece Child care centers—78%
- Ireland Disadvantaged preschools—63%

In most countries in which more than 1 type of setting was included in the study, the percentages having *outdoor play areas* are similar for the different types of settings (e.g., China's urban kindergartens = 95%; rural kindergartens = 97%). A difference of more than 15 percentage points is found only in Ireland, where the percentage of disadvantaged preschools having outdoor play areas is much lower than the percentages for the other 3 types of settings.

The findings presented in Table 7.5 are notable because in many participating nations (e.g., Hong Kong, Indonesia, United States), data were collected in major urban areas in which the availability of outdoor space for play areas might be limited.

Location of Outdoor Play Areas

Where are the outdoor play areas located? Are they in the same location as the early childhood setting (i.e., on the property)? If not, are they within walking distance for children? Table 7.6, on the following page, provides the data to answer these questions and shows that for most of the 31 types of settings reporting these findings, the outdoor play areas are located on the same property. In fact, this is true of 90% or more of 25 different types of settings.

In general, the percentages of outdoor play areas located on the property are similar across different types of settings within a nation (e.g., in Ireland, the percentages for the 4 types of settings are 95%, 93%, 96%, and 92%). The two exceptions to this general finding are Hong Kong and Nigeria. In each of these countries, the percentage of outdoor play areas on the property is much lower for 1 type of setting than the other.

• Hong Kong	Kindergartens—83% Child care centers—65%
• Nigeria	Urban group settings—96% Rural group settings—81%

In the two types of settings above with the lower percentages of outdoor play areas on the property, the remainder of the outdoor play areas are within walking distance for children.

• Hong Kong	Child care centers—35%
• Nigeria	Rural group settings—19%

For 3 other types of settings, the directors of 10% or more of the settings reported that their outdoor play areas are not on the property but that they are within walking distance for children.

• China	Rural kindergartens—13%
• Finland	Child care centers—13%
• Hong Kong	Kindergartens—11%

A third possible response to the question regarding the location of a play area was not on the property and not within walking distance. As Table 7.6 indicates, the percentages of directors selecting this response were very small, with the largest percentages being around 5%, and those are found for only a few types of settings. This suggests that children attending the settings included in this study generally have outdoor play areas readily available to them.

Frequency of Use of Outdoor Play Areas

How often do children use outdoor play areas? Table 7.7 on p. 226 contains these findings for all 31 types of settings in the study, divided into 4 categories of frequency of use: (1) more than once a day, (2) once a day, (3) less than once a day, and (4) other.

Table 7.6 Percentage of outdoor play areas in various locations

Country/Territory	*N* With Outdoor Play Area	Location of Outdoor Play Area % On Property	 % Within Walking Distance	 % Not Within Walking Distance	 % Don't Know/No Response
Belgium (Fr.—Liège Province, Brussels)					
Public nursery schools	28	100	0	0	0
Private nursery schools	27	100	0	0	0
China (PRC, 6 provinces)					
Urban kindergartens	205	93	7	0	0
Rural kindergartens	186	87	13	0	0
Finland					
Child care centers	61	85	13	0	2
Greece (urban)					
Public kindergartens*	34	100	0	0	0
Child care centers	18	100	0	0	0
Hong Kong (SAR)					
Kindergartens	18	83	11	6	0
Child care centers	20	65	35	0	0
Indonesia (Java)					
Urban kindergartens	36	92	8	0	0
Rural kindergartens	23	74	0	4	22
Ireland					
Nondisadvantaged preschools	21	95	5	0	0
Disadvantaged preschools	15	93	7	0	0
Disadvantaged national schools	26	96	0	0	4
Nondisadvantaged national schools	26	92	4	4	0
Italy					
Preprimary schools	127	90	9	0	1
Nigeria (3 states)					
Urban group settings	42	96	2	2	0
Rural group settings	16	81	19	0	0
Poland					
Urban preschools	75	96	3	0	1
Rural preschools	49	91	0	0	9
Romania					
Urban normal-day kindergartens	24	100	0	0	0
Rural normal-day kindergartens	21	95	0	5	0
Urban long-day kindergartens	24	100	0	0	0
Slovenia					
Kindergartens*	32	91	6	0	3
Spain (Catalonia)					
Public kindergartens	28	100	0	0	0
Private kindergartens	22	91	9	0	0
Thailand					
Educational programs	31	100	0	0	0
Child care centers	20	100	0	0	0
United States (6 sites)					
Head Start centers*	22	95	0	0	5
Public school preschools	21	100	0	0	0
Other organized programs*	30	93	7	0	0

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

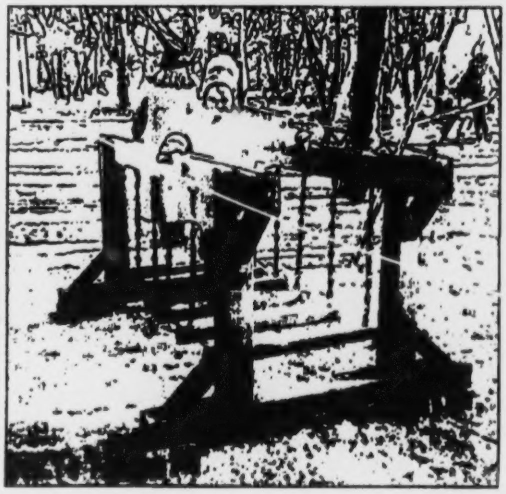
These photographs illustrate the diversity of opportunities for outdoor play.

Indonesia

Romania

Finland

China



Poland

Table 7.7 Percentage of settings with different frequencies of usage of outdoor play areas

Country/Territory	*N* With Outdoor Play Area	% More Than Once per Day	Once per Day	Less Than Once per Day	Other
Belgium (Fr.—Liège Province, Brussels)					
Public nursery schools	28	100	0	0	0
Private nursery schools	27	100	0	0	0
China (PRC, 6 provinces)					
Urban kindergartens	205	79	19	1	1
Rural kindergartens	186	81	10	6	3
Finland					
Child care centers	61	32	69	0	0
Greece (urban)					
Public kindergartens*	34	0	97	0	3
Child care centers	18	0	83	0	17
Hong Kong (SAR)					
Kindergartens	18	0	20	47	33
Child care centers	20	17	39	44	0
Indonesia (Java)					
Urban kindergartens	36	8	75	14	3
Rural kindergartens	23	9	87	4	0
Ireland					
Nondisadvantaged preschools	21	0	35	6	59
Disadvantaged preschools	15	9	36	9	45
Disadvantaged national schools	26	45	50	5	0
Nondisadvantaged national schools	26	42	58	0	0
Italy					
Preprimary schools	127	0	22	8	69
Nigeria (3 states)					
Urban group settings	42	0	90	7	2
Rural group settings	16	0	100	0	0
Poland					
Urban preschools	75	1	97	1	0
Rural preschools	49	0	100	0	0
Romania					
Urban normal-day kindergartens	24	0	100	0	0
Rural normal-day kindergartens	21	0	95	5	0
Urban long-day kindergartens	24	0	100	0	0
Slovenia					
Kindergartens*	32	10	71	19	0
Spain (Catalonia)					
Public kindergartens	28	15	85	0	0
Private kindergartens	22	14	82	5	0
Thailand					
Educational programs	31	0	100	0	0
Child care centers	20	0	100	0	0
United States (6 sites)					
Head Start centers*	22	0	100	0	0
Public school preschools	21	10	81	10	0
Other organized programs*	30	10	79	7	3

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

The category *other* generally indicates that the schedule for the use of the outdoor play area varies from day to day. This variation is frequently related to special instruction (e.g., music, art) that might occur 1 or 2 days during the week. On these days, the outdoor play area is frequently used on a different schedule. As Table 7.7 shows, there are 5 types of settings with percentages larger than 10% in the *other* category.

• Greece	Child care centers—17%
• Hong Kong	Kindergartens—33%
• Ireland	Both preschool settings—59%, 45%
• Italy	Preprimary schools—69%

Due to the size of these percentages, they will not be included in the following discussion of the frequency of use of outdoor play areas.

Across the 26 remaining types of settings, the findings show that in nearly every type of setting 90% or more reported that children use the outdoor play area at least once a day (i.e., combined percentage for *more than once a day* and *once a day).* There are only 4 types of settings where the percentage is lower than 90%.

• Hong Kong	Child care centers—56%
• Indonesia	Urban kindergartens—83%
• Slovenia	Kindergartens—81%
• United States	Other organized programs—89%

The low percentage for child care centers in Hong Kong might be related to the data reported earlier that 35% of their outdoor play areas were *not* located on the property but were within walking distance. Thus, it may be more difficult for children to spend time in this play area on a daily basis. In general, the percentages of at least daily usage of outdoor play areas are similar across types of settings within a country.

SIZE OF OUTDOOR PLAY AREAS

Table 7.8, on the following page, presents the median size of outdoor play areas for 27 types of settings across 14 countries. As this information indicates, there are 4 types of settings for which the typical play area is 1,000 m^2 or larger:

• Finland	Child care centers—1,000 m^2
• Poland	Urban preschools—1,000 m^2
• Romania	Urban long-day kindergartens—1,350 m^2
• Slovenia	Kindergartens—2,000 m^2

There are also 5 types of settings that have outdoor play areas between 500 m^2 and 1,000 m^2:

• Poland	Rural preschools—675 m^2
• Spain	Public kindergartens and private kindergartens—800 m^2 each
• United States	Head Start centers and public school preschools—700 m^2 and 725 m^2

Thus, of the 27 types of settings in the table, directors in 9 types reported having outdoor play areas averaging more than 500 m^2. Of these 9 types of settings, 4 types are located in eastern European countries, 3 types are located in western European countries, and 2 types are located in the United States. No types of settings from Asian or African countries are included in this group.

Table 7.8 Median size of outdoor play areas for various types of settings

	Outdoor Areas Available for Play			Outdoor Areas Available for Play	
Country/Territory	*N* With Outdoor Play Area	Area m^2 (*Mdn*)	Country/Territory	*N* With Outdoor Play Area	Area m^2 (*Mdn*)
Belgium (Fr.—Liège Province, Brussels)			**Nigeria (3 states)**		
Public nursery schools	28	250	Urban group settings	42	200
Private nursery schools	27	400	Rural group settings	16	200
China (PRC, 6 provinces)			**Poland**		
Urban kindergartens	205	420	Urban preschools	75	1,000
Rural kindergartens	186	410	Rural preschools	49	675
Finland			**Romania**		
Child care centers	61	1,000	Urban normal-day kindergartens	24	300
Greece (urban)			Rural normal-day kindergartens	21	325
Public kindergartens*	34	275	Urban long-day kindergartens	24	1,350
Child care centers	18	225	**Slovenia**		
Hong Kong (SAR)			Kindergartens*	32	2,000
Kindergartens	18	136	**Spain (Catalonia)**		
Child care centers	20	142	Public kindergartens	28	800
Indonesia (Java)			Private kindergartens	22	800
Urban kindergartens	36	100	**Thailand**		
Rural kindergartens	23	80	Educational programs	31	500
Ireland			Child care centers	20	280
Nondisadvantaged preschools	21	NI	**United States (6 sites)**		
Disadvantaged preschools	15	NI	Head Start centers*	22	700
Disadvantaged national schools	26	NI	Public school preschools	21	725
Nondisadvantaged national schools	26	NI	Other organized programs*	30	375
Italy					
Preprimary schools	127	300			

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Directors in 9 types of settings reported having outdoor play areas that average less than 300 m^2, with the smallest outdoor play areas reported for 2 types of settings in Indonesia (urban kindergartens = 100 m^2, rural kindergartens = 80 m^2). Other settings having outdoor play areas averaging less than 300 m^2 are these:

• Belgium	Public nursery schools—250 m^2
• Greece	Public kindergartens and child care centers—275 m^2 and 225 m^2
• Hong Kong	Kindergartens and child care centers—136 m^2 and 142 m^2
• Nigeria	Urban and rural group settings—200 m^2 each
• Thailand	Child care centers—280 m^2

This group of 10 types of settings having small outdoor play areas includes 5 types from Asian countries, 2 types from an African nation, and 3 types from western European nations.

Medium-sized outdoor play areas (average size between 300 m^2 and 500 m^2) are found in the remaining 9 types of settings. These settings are found in 7 countries, including ones from eastern Europe (Romania), western Europe (Belgium, Italy), Asia (China, Hong Kong, Thailand), and North America (United States).

One final observation from Table 7.8 relates to the median sizes of outdoor play areas for various types of settings *within* a country. There are 11 countries with more than 1 type of setting in the study and with findings reported in the table. In 6 of these 11 countries (China, Greece, Hong Kong, Indonesia, Nigeria, Spain) the average sizes of outdoor play areas are very similar (less than 100 m^2 difference). In the other 5 countries, there are large differences (more than 200 m^2) in the average sizes.

AVAILABILITY OF INDOOR PLAY AREAS

The final question in the play area section of the Provider Survey asked whether there is an indoor play area (a large open space) for the children to use. The directors' responses to this question are shown in Table 7.9 on the following page. There does not seem to be a clear pattern to the findings in this table. The percentages of settings having indoor play areas vary from 0% (Romania's rural normal-day kindergartens) to 95% (U.S. public school preschools), with little clustering of percentages.

The findings for 2 countries seem worthy of mention. First, in Hong Kong, very high percentages of both kindergartens and child care centers reported having indoor play areas available for the children to use (88%, 92%). This may be related to the findings reported earlier about the off-site location of outdoor play areas and the frequency of usage of such areas. That is, having indoor play areas may ensure that children have a space for gross-motor and free-play activities on a regular basis. Second, in Romania very low percentages of settings of all 3 types reported having indoor play areas available for children (4%, 0%, 4%). These percentages are the lowest included in Table 7.9.

In Hong Kong, children participate in gross-motor activities in an indoor play area.

EQUIPMENT AND MATERIALS

As noted in the introduction to this section, the equipment and materials available in an early childhood setting are important because they enhance development of specific skills (e.g., gross-motor skills) and provide opportunities for children to learn about their world (e.g., other children, animals). For example, children develop their fine-motor skills as they use small blocks, beads, play dough, and puzzles. They use drawing materials (e.g., paper, crayons) to help them represent 3-dimensional objects in their surroundings. Through the use of dramatic play materials (e.g., dress-up clothes, props), children practice playing the roles of others, both real and imaginary (e.g., parent, superhero). They also use reading materials (books, magazines) to learn about others (children, animals) in the world and to have early prereading experiences. More examples could be given, but the important point is that one way in which children develop skills and learn about the world is through interaction with materials in their environment, therefore it is important for early childhood settings to provide these materials. It is important to have a sufficient *amount* of materials (e.g., enough dramatic play materials for several children to use at once), as well as a *variety* of materials (e.g., different types of fine-motor materials).

Table 7.9 Percentage of settings with indoor play area available

Country/Territory	*N*	% With Indoor Play Area	Country/Territory	*N*	% With Indoor Play Area
Belgium (Fr.—Liège Province, Brussels)			**Nigeria (3 states)**		
Public nursery schools	28	57	Urban group settings	47	19
Private nursery schools	27	75	Rural group settings	18	19
China (PRC, 6 provinces)			**Poland**		
Urban kindergartens	216	54	Urban preschools	75	59
Rural kindergartens	191	29	Rural preschools	49	33
Finland			**Romania**		
Child care centers	66	34	Urban normal-day kindergartens	24	4
Greece (urban)			Rural normal-day kindergartens	21	0
Public kindergartens*	49	5	Urban long-day kindergartens	24	4
Child care centers	22	22	**Slovenia**		
Hong Kong (SAR)			Kindergartens*	44	17
Kindergartens	26	88	**Spain (Catalonia)**		
Child care centers	25	92	Public kindergartens	29	48
Indonesia (Java)			Private kindergartens	25	67
Urban kindergartens	39	72	**Thailand**		
Rural kindergartens	28	52	Educational programs	31	87
Ireland			Child care centers	22	59
Nondisadvantaged preschools	25	71	**United States (6 sites)**		
Disadvantaged preschools	29	71	Head Start centers*	31	68
Disadvantaged national schools	27	40	Public school preschools	24	95
Nondisadvantaged national schools	28	39	Other organized programs*	45	77
Italy					
Preprimary schools	143	58			

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

The Provider Survey inquired about the availability of equipment and materials in each early childhood setting in the study. The questionnaire included items about the availability of more than 100 types of equipment/materials in 8 major categories. (Section H of the Provider Survey in Appendix A lists all the equipment and materials included in the questionnaire.) The equipment/materials items on the questionnaire can be grouped into the following categories:

Motor equipment and materials

- Gross-motor equipment (e.g., swing sets, balls, large construction toys)
- Fine-motor materials (e.g., puzzles, beads, small construction toys)

Expressive equipment and materials

- Dramatic play materials (e.g., dress-up clothes, puppets, play people)
- Arts and crafts materials (e.g., pencils, paintbrushes, clay)
- Music-related materials (e.g., songs/song books, tapes/records, rhythm instruments)

Preacademic equipment and materials

- Science/nature materials (e.g., rocks, plants, magnifying glasses)
- Reading/literacy materials (e.g., books, magazines, newspapers)

Miscellaneous equipment and materials

- Audiovisual aids (e.g., radio, tape recorder, projector)

Table 7.10 (pp. 232–234) presents the findings for this section of the Provider Survey for 26 types of settings across 12 countries. (Indonesia, Slovenia, and Spain did not include this section of the questionnaire in their national data collection.) For each type of setting, the table presents 3 kinds of information: (1) the percentage of settings having 1 or more of the kinds of items listed in a specific category, (2) the median number of kinds of items for that category, and (3) the minimum and maximum number of different kinds of items for that category.

An example may assist the reader in understanding the findings in the table. The category of gross-motor equipment included 31 different kinds of items. The findings for Greek public kindergartens indicate that (1) 100% of these settings reported having at least 1 kind of gross-motor item (e.g., at least 1 swing set or at least 1 balance beam), (2) the median number of different kinds of gross-motor materials available is 5 (i.e., 5 different kinds of gross-motor equipment), and (3) the minimum number of different kinds of items reported by any of these settings was 2 and the maximum number was 11.

PERCENTAGE OF SETTINGS WITH AT LEAST ONE KIND OF ITEM PER CATEGORY

As noted above, Column 1 for each category in Table 7.10 presents the percentages of settings having at least 1 kind of item from that category. For 5 of the 8 categories (i.e., gross motor, fine motor, dramatic play, arts and crafts, and music) most of the percentages are 80% or higher, indicating that most settings of any type had at least 1 kind of item available. Columns 2 and 3 present information about the amount of materials available within a category for different types of settings.

Of the total of 208 percentages in Table 7.10, 20 are 50% or lower, which denotes that half or more of settings of a specific type do *not* have a single item of equipment or any materials for a specific category. For example, in the *fine-motor materials* column, the percentages for the 2 types of settings in Nigeria are 48% and 38%. Thus, in approximately half of the urban group settings in Nigeria there are no fine-motor materials available; this same absence of fine-motor materials was reported by nearly two thirds of the rural group settings in Nigeria. The remaining low percentages in Table 7.10 can be interpreted in a similar manner.

AVERAGE NUMBERS OF DIFFERENT KINDS OF ITEMS FOR DIFFERENT TYPES OF SETTINGS

Columns 2 and 3 under each category provide the average number of different kinds of items found in settings as well as the minimum and maximum numbers reported. Two of the 8 categories will be examined here, dramatic play materials and science/nature materials.

The Provider Survey listed 14 different kinds of dramatic play items, including such things as dress-up clothes, play props (e.g., general household items, play food), and puppets. Although 50% of the various types of settings (13 of 26) reported having an average of 7 or more kinds of dramatic play items, the other 50% have medians lower than this. Rural kindergartens in China and both urban and rural group settings in Nigeria reported medians of 0 items for this category. Thirteen types of settings in 7 countries reported having at least 1 setting in which there were no dramatic play items (minimum = 0). The maximum numbers of different kinds of dramatic play items across settings generally range between 9 and 14.

Table 7.10 Equipment and materials in early childhood settings

		Gross-Motor Equipment (31 items)			Fine-Motor Materials (15 items)			Dramatic Play Materials (14 items)		
Country/Territory	*N*	% With at Least 1 Kind of Item	Median	Range	% With at Least 1 Kind of Item	Median	Range	% With at Least 1 Kind of Item	Median	Range
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	100	12	4–24	100	11	5–14	100	10	3–13
Private nursery schools	27	100	11	3–23	100	11	7–14	100	10	3–14
China (PRC, 6 provinces)										
Urban kindergartens	216	98	10	0–21	95	7	0–14	87	4	0–9
Rural kindergartens	191	95	5	0–19	71	2	0–13	40	0	0–10
Finland										
Child care centers	66	100	18	10–26	100	14	8–15	100	12	8–14
Greece (urban)										
Public kindergartens[a]	49	100	5	2–11	100	8	3–12	97	5	0–10
Child care centers	22	96	7	0–17	96	8	0–13	96	6	0–12
Hong Kong (SAR)										
Kindergartens	26	100	13	6–18	100	11	8–15	96	7	0–14
Child care centers	25	100	14	8–18	100	12	8–15	100	11	4–14
Indonesia (Java)										
Urban kindergartens	39	NI	NI	NI	NI	NI	NI	NI	NI	NI
Rural kindergartens	28	NI	NI	NI	NI	NI	NI	NI	NI	NI
Ireland										
Nondisadvantaged preschools	25	96	6	0–13	100	13	7–15	100	9	2–13
Disadvantaged preschools	29	89	8	0–18	96	13	0–15	92	9	0–14
Disadvantaged national schools	27	73	6	0–11	96	10	0–15	92	4	0–14
Nondisadvantaged national schools	28	81	4	0–12	100	11	1–14	93	4	0–9
Italy										
Preprimary schools	143	100	8	1–21	100	9	2–14	97	7	0–13
Nigeria (3 states)										
Urban group settings	47	85	4	0–9	48	0	0–11	41	0	0–5
Rural group settings	18	94	5	0–30	38	0	0–13	25	0	0–14
Poland										
Urban preschools	75	100	13	2–20	100	11	5–15	100	9	2–14
Rural preschools	49	100	10	4–20	100	11	7–14	100	8	4–13
Romania										
Urban normal-day kindergartens	24	100	2	1–5	100	7	3–10	100	1	1–7
Rural normal-day kindergartens	21	67	1	0–3	100	6	3–7	100	1	1–3
Urban long-day kindergartens	24	100	4	2–9	100	8	4–11	100	2	1–8
Slovenia										
Kindergartens[a]	44	NI	NI	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	100	9	3–24	100	11	2–14	94	6	0–11
Child care centers	22	100	4	1–11	91	3	0–10	55	1	0–9
United States (6 sites)										
Head Start centers[a]	31	100	15	6–31	100	14	11–15	100	10	7–14
Public school preschools	24	95	14	0–31	100	14	9–15	100	11	2–14
Other organized programs[a]	45	100	16	5–31	100	13	8–15	100	9	3–14

Note. N is the number of settings sampled for each type of setting in a country. The symbol [a] indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Table 7.10 (cont.) Equipment and materials in early childhood settings

		Art/Craft Materials (16 items)			Music-Related Materials (5 items)			Science/Nature Materials (12 items)		
Country/Territory	*N*	% With at Least 1 Kind of Item	Median	Range	% With at Least 1 Kind of Item	Median	Range	% With at Least 1 Kind of Item	Median	Range
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	100	12	9–15	100	4	1–5	93	4	0–9
Private nursery schools	27	100	11	6–13	97	4	0–5	97	4	0–10
China (PRC, 6 provinces)										
Urban kindergartens	216	99	8	0–14	98	3	0–4	75	2	0–11
Rural kindergartens	191	98	6	0–13	86	2	0–4	41	0	0–9
Finland										
Child care centers	66	100	13	8–16	100	4	3–5	100	6	1–11
Greece (urban)										
Public kindergartens*	49	100	12	8–16	100	4	3–5	84	4	0–8
Child care centers	22	96	12	0–15	96	4	0–5	52	1	0–9
Hong Kong (SAR)										
Kindergartens	26	100	13	8–14	96	4	0–5	92	7	0–12
Child care centers	25	100	13	9–14	100	5	4–5	100	7	3–12
Indonesia (Java)										
Urban kindergartens	39	NI	NI	NI	NI	NI	NI	NI	NI	NI
Rural kindergartens	28	NI	NI	NI	NI	NI	NI	NI	NI	NI
Ireland										
Nondisadvantaged preschools	25	100	12	9–15	96	3	0–5	80	2	0–9
Disadvantaged preschools	29	92	11	0–15	77	4	0–5	77	3	0–8
Disadvantaged national schools	27	96	11	0–15	96	2	0–5	81	2	0–9
Nondisadvantaged national schools	28	100	10	5–13	100	3	1–4	78	3	0–9
Italy										
Preprimary schools	143	99	11	0–15	96	3	0–5	65	1	0–8
Nigeria (3 states)										
Urban group settings	47	100	5	2–12	46	0	0–4	33	0	0–9
Rural group settings	18	100	5	3–10	50	1	0–4	25	0	0–6
Poland										
Urban preschools	75	100	14	6–16	100	5	3–5	100	7	1–12
Rural preschools	49	100	14	8–16	100	5	1–5	100	6	1–10
Romania										
Urban normal-day kindergartens	24	100	10	6–11	52	1	0–4	62	1	0–6
Rural normal-day kindergartens	21	100	8	3–11	24	0	0–3	38	0	0–3
Urban long-day kindergartens	24	100	10	8–13	67	1	0–4	83	1	0–6
Slovenia										
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	100	12	2–16	94	3	0–5	74	4	0–12
Child care centers	22	95	5	0–13	45	0	0–5	23	0	0–4
United States (6 sites)										
Head Start centers*	31	100	15	9–16	100	4	3–5	100	7	3–12
Public school preschools	24	100	15	11–16	100	4	1–5	100	7	2–12
Other organized programs*	45	100	14	9–16	100	4	2–5	100	5	1–12

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Table 7.10 (cont.) Equipment and materials in early childhood settings

		Reading Materials (9 items)			Audiovisual Aids (9 items)		
Country/Territory	*N*	% With at Least 1 Kind of Item	Median	Range	% With at Least 1 Kind of Item	Median	Range
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28	100	7	4–9	100	6	2–8
Private nursery schools	27	100	6	1–9	100	6	1–7
China (PRC, 6 provinces)							
Urban kindergartens	216	93	3	0–6	93	3	0–8
Rural kindergartens	191	77	2	0–5	63	1	0–6
Finland							
Child care centers	66	100	8	2–9	100	5	2–9
Greece (urban)							
Public kindergartens*	49	100	5	1–8	92	2	0–3
Child care centers	22	96	5	0–8	96	3	0–6
Hong Kong (SAR)							
Kindergartens	26	96	7	0–9	96	4	0–8
Child care centers	25	100	8	4–9	100	4	1–8
Indonesia (Java)							
Urban kindergartens	39	NI	NI	NI	NI	NI	NI
Rural kindergartens	28	NI	NI	NI	NI	NI	NI
Ireland							
Nondisadvantaged preschools	25	100	4	2–8	80	2	0–6
Disadvantaged preschools	29	96	4	0–8	81	1	0–6
Disadvantaged national schools	27	92	5	0–7	88	4	0–9
Nondisadvantaged national schools	28	100	5	2–8	100	5	2–9
Italy							
Preprimary schools	143	99	6	0–8	99	5	0–8
Nigeria (3 states)							
Urban group settings	47	70	2	0–9	9	0	0–5
Rural group settings	18	81	2	0–4	13	0	0–1
Poland							
Urban preschools	75	100	8	1–9	100	6	3–9
Rural preschools	49	100	7	4–9	100	6	3–8
Romania							
Urban normal-day kindergartens	24	100	3	2–5	42	0	0–2
Rural normal-day kindergartens	21	100	3	1–5	24	0	0–3
Urban long-day kindergartens	24	100	4	3–5	62	1	0–5
Slovenia							
Kindergartens*	44	NI	NI	NI	NI	NI	NI
Spain (Catalonia)							
Public kindergartens	29	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI
Thailand							
Educational programs	31	100	7	1–9	84	5	0–9
Child care centers	22	41	0	0–5	27	0	0–3
United States (6 sites)							
Head Start centers*	31	100	6	4–9	100	7	2–9
Public school preschools	24	100	5	1–9	91	5	0–9
Other organized programs*	45	100	6	1–9	100	6	2–9

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

The questionnaire contained 12 science/nature items, including such things as rocks, shells, and animals for observation. The highest reported median number of different kinds of science/nature items (7) was reported by 5 types of settings in 3 countries (Hong Kong, Poland, United States). Eighteen types of settings across 8 countries reported having an average of 4 or fewer different kinds of science/nature items.

The ranges show that in 19 different types of settings across 9 countries, at least 1 setting reported having 0 science/nature items. One or more settings in 7 different types of settings across 4 countries (Hong Kong, Poland, Thailand, United States) reported having all of the science/nature items included on the questionnaire.

A LOOK AT THE FINDINGS BY TYPE OF SETTING

Figure 7.5 (following page) presents a picture of the general availability of equipment and materials for the 26 types of settings with findings in Table 7.10. For each type of setting, a total number of items was derived for a hypothetical "average" setting by adding the medians of the 8 basic categories.

Finnish children sort materials found outdoors.

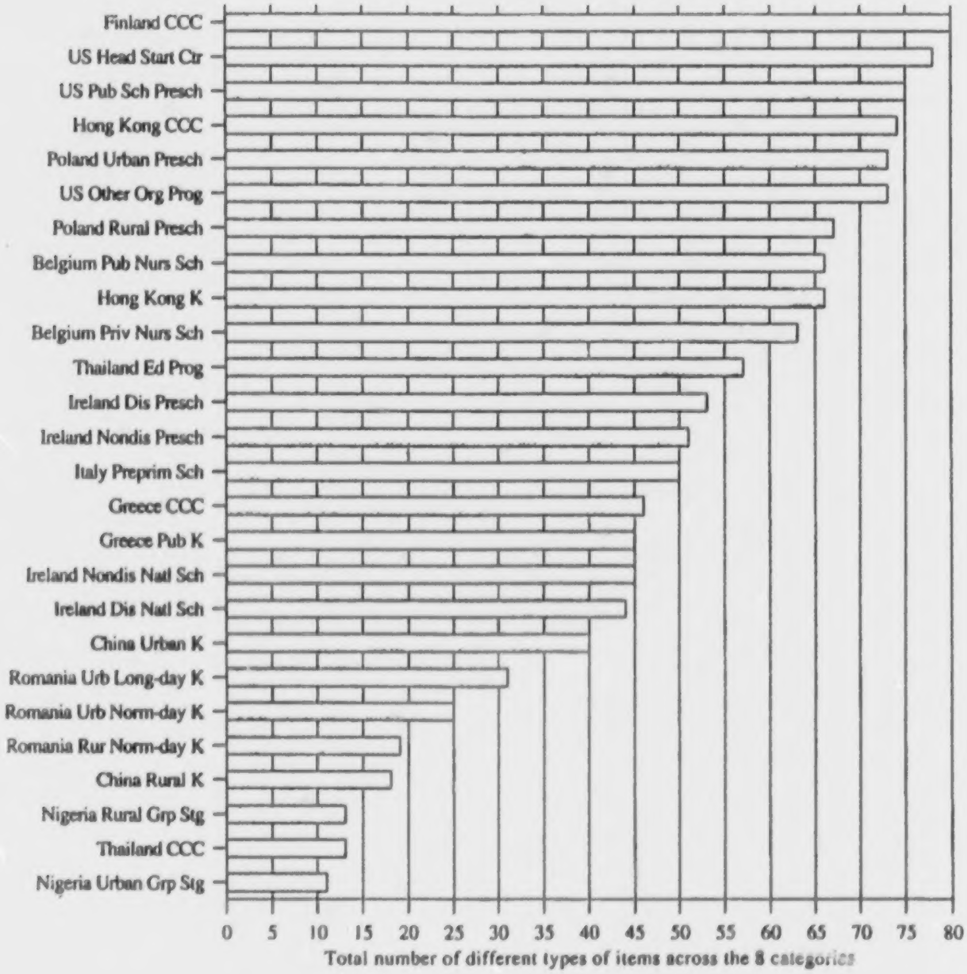


Figure 7.5 Estimate of overall availability of equipment and materials

For example, for preprimary schools in Italy, the median for the gross-motor category (8) was added to the median for the fine-motor category (9) and so forth to yield a total of 50 different types of equipment/materials across the 8 categories.

On average, child care centers in Finland have the largest number of different types of equipment and materials (80 items). Other countries with large numbers include Belgium, Hong Kong, Poland, and the United States.

It is not surprising that the types of settings having the smallest number of different kinds of equipment and materials are those from nations often referred to as developing (China, Indonesia, Nigeria, Poland, Romania, and Thailand). Equipment and materials findings were reported for 11 different types of settings in these 6 countries, and 8 of these 11 types of settings are at the bottom of Figure 7.5. The three exceptions include educational programs in Thailand, whose ranking is located in the middle of the figure, and the 2 types of preschools in Poland, both of which are found near the top of the figure. It would appear that Polish preschools have made the provision of equipment and materials a high priority and have found a way to accomplish this goal despite their "developing country" status.

DISCUSSION

This chapter has presented information about the physical characteristics of 31 different types of early childhood settings operating in 15 countries in Asia, Africa, eastern and western Europe, and North America. These descriptive data provide important factual information about the physical resources of settings, such as space per child, availability and use of outdoor play areas, and availability of various kinds of equipment and materials. These physical characteristics are important to the development and learning of young children since they define children's physical environment and provide them with opportunities for interacting with the environment. The following section will focus mainly on the relationship between information presented in the national profiles and the findings reported in this chapter.

NUMBER AND CHARACTERISTICS OF ROOMS

Number of rooms used

Only a few national profiles include specific information about the number of rooms used by a group of children, and in general the findings from the present study are consistent with the information in the profiles. For example, Spain's national profile notes that in addition to the basic classroom used by a group of children, *kindergartens have a multipurpose room, a teachers' room, an optional remedial work room, and a lunchroom* (Chapter 3, p. 99). The findings reported in Table 7.1 for Spain indicate that in public kindergartens between 1 and 7 rooms are used by a group of children, and in private kindergartens between 1 and 5 rooms are used.

Two national profiles contain descriptions that illustrate the disparity between physical settings in different nations. The first description, from Slovenia's national profile, states that *most kindergartens in Slovenia are located in buildings designed especially for young children and have a variety of rooms, including classrooms, a gymnasium, a room for individual work, a room for toys, washrooms, wardrobes, and a room for teachers* (Chapter 3, p. 95). In contrast, Nigeria's national profile indicates that *almost any type of space may be used as a preprimary setting, including garages, stores, flats/apartments, and rudimentary buildings with bare floors and no windows* (Chapter 3, p. 88).

These two descriptions give the reader a vivid picture of the settings in these countries. When the statistical findings reported in Table 7.1 and Figure 7.1 are combined with the detailed descriptions in some of the national profiles, the reader has a wealth of information about the rooms in which children spend time.[7]

Characteristics of rooms

Nine national profiles include specific information about whether or not rooms are structured for children. Eight profiles indicate that rooms *are* structured for young children, and the findings in Table 7.2 support these statements. The ninth profile (Nigeria's) indicates that some early childhood centers are structured for children but others are not. The findings in Table 7.2 support this description; Nigeria's percentages are among the lowest listed.

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[7] The High/Scope Educational Research Foundation has produced a series of 45-minute videotapes that might be of interest to readers. Each features 2–3 typical early childhood settings in a participating country. See p. ii to order.

Hong Kong's national profile provides an interesting description of rooms, with a focus on the child-structured features: *Rooms in most preprimary settings are furnished with child-sized tables and chairs, often grouped in small islands accommodating 6–10 children each. Low shelves with books and toys are generally located around the periphery of the rooms, sometimes set up as separate learning/play centers. All washrooms have child-sized toilets and sinks* (Chapter 3, p. 73).

In the national profiles, only Slovenia explicitly noted that settings contain a room for adult use, although the findings presented in Table 7.3 indicate that only 82% of respondents in that country reported that their settings include such a room.

SPACE PER CHILD IN EARLY CHILDHOOD SETTINGS

Most of the national profiles include information about the amount of space per child required by a government agency or other organization, or include information about the "usual" amount of space per child in their centers. Comparing the national profile information with the findings presented in Table 7.4, we see that in 15 of 18 settings the amount of space per child reported in the table is equal to or more than the amount required or "generally" found. For example, the Finnish national profile states that *for children aged 3 to 6 years, interior space must be at least 6 m^2 per child* (Chapter 3, p. 66), and the findings in Table 7.4 indicate that the estimated space per child in centers in Finland is 9.1 m^2. Therefore, in Finnish child care centers and in 14 other types of early childhood settings (out of the total of 18 comparisons), the findings indicate that the required or "usual" space-per-child minimums are met.

CHARACTERISTICS OF PLAY AREAS

The national profiles suggest that in most countries an outdoor play area is considered an important component of young children's environment. Several profiles specifically indicate that such outdoor play areas are required (e.g., China, Spain), while others note that most early childhood centers have this type of area. The findings reported in Table 7.5 present a picture of almost universal availability of outdoor play areas in early childhood centers in all geographical areas in the study. That is, in most types of settings, outdoor play areas are available in 90% or more of the settings.

A small number of national profiles describe specific characteristics of the outdoor play area. For example, the Greek national profile states that *most preprimary settings also have an outdoor play area, and some have a garden* (Chapter 3, p. 69). The Spanish national profile notes that *outdoor spaces include a covered space, which may be a garden or greenhouse, and a playground.* (Chapter 3, p. 99).

It is also useful to compare the information presented in several national profiles with actual findings regarding the average size of outdoor play areas. Spain's national profile notes that the outdoor play area must be 150 m^2, while the findings in the table indicate that the median size of outdoor play areas for both public and private kindergartens in Spain is 800 m^2. Italy's national profile describes the sizes of typical outdoor play areas this way: *Such areas are usually large (an average of 707 m^2), but much larger in northern Italy (an average of 1,000 m^2 per school) than in southern Italy (an average of 369 m^2 per school)* (Chapter 3, pp. 84–85). However, as the findings in the table show, the median size of outdoor play areas as estimated by respondents in Italian preprimary schools was 300 m^2, an area smaller than that described in the profile.

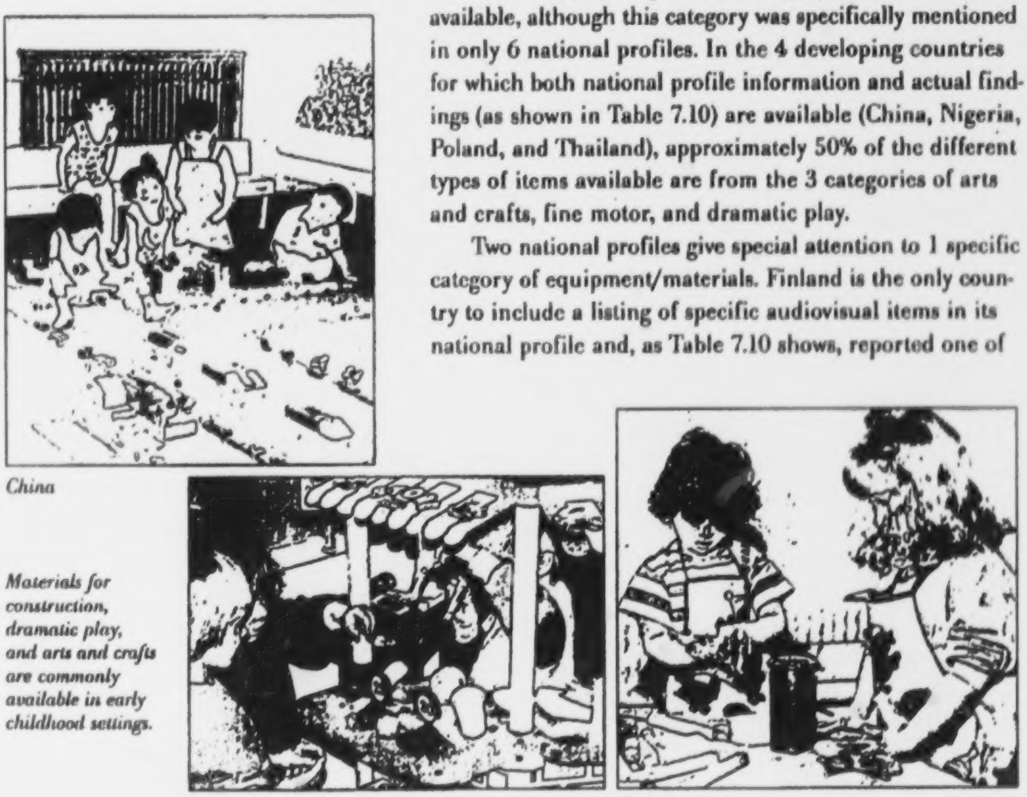
Two other national profiles mention space-per-child requirements for outdoor play areas (Finland = 10–20 m^2; Slovenia = 15 m^2). Using the median sizes for outdoor play areas reported in Table 7.8 and the median group size for early childhood centers in each country, a space-per-child estimate can be calculated. A comparison of these estimates (from the information provided by the respondents) with the minimum space-per-child requirements shows that in both countries the actual play areas are much larger than required (Finland—1,000/11 = 90 m^2; Slovenia—2,000/18 = 111 m^2).

EQUIPMENT AND MATERIALS

As noted earlier, there is great variety in the number of different kinds of equipment and materials that early childhood settings have available. What kinds of equipment and materials do the national profiles mention and how does that information fit with the data provided by respondents?

In 11 of the 14 national profiles, specific kinds of equipment and materials are named. The kinds of items most frequently identified include blocks (or construction materials), materials for arts and crafts, and materials for dramatic play. Each of these kinds of materials was specifically identified in 9 of the 11 national profiles listing equipment/materials. The findings in Table 7.10 are generally consistent with these profile listings, showing that early childhood settings in most countries have at least a moderate number of different kinds of materials in these 3 categories. Most types of settings also have a variety of gross-motor equipment/materials available, although this category was specifically mentioned in only 6 national profiles. In the 4 developing countries for which both national profile information and actual findings (as shown in Table 7.10) are available (China, Nigeria, Poland, and Thailand), approximately 50% of the different types of items available are from the 3 categories of arts and crafts, fine motor, and dramatic play.

Two national profiles give special attention to 1 specific category of equipment/materials. Finland is the only country to include a listing of specific audiovisual items in its national profile and, as Table 7.10 shows, reported one of



China

Poland

Ireland

Materials for construction, dramatic play, and arts and crafts are commonly available in early childhood settings.

the highest median numbers of different types of these items. In addition, Thailand's national profile includes a list of several different kinds of gross-motor equipment/materials generally available in settings in that country. A detailed look at Thailand's data shows that most educational programs and some child care centers have some of the items listed (i.e., slides, climbers, swings), while many educational programs have other items included in the list (e.g., balls, balance beams, tricycles).

Nine national profiles specifically mention the availability of dramatic play materials, and the findings in Table 7.10 indicate that respondents in most countries did indeed report the availability of several kinds of such materials in their settings. Preliminary findings from analyses of the observation data indicate that, across the various types of settings in most countries, teachers only rarely proposed dramatic play activities, and observers noted children engaging in this type of activity during only a small percentage of their observations. (Monograph #3 of the IEA Preprimary Project Phase 2 findings will present the findings from the observations conducted in each setting using three different systems.)

Finally, here is a comment on the findings in Table 7.10 showing that various types of settings in most countries have only a few different kinds of science and nature materials available. After reviewing the findings, the national research coordinator of the Hong Kong study stated, "From my experience in Hong Kong, many early childhood teachers have little or no experience with science in their educational background. Thus, they do not know what to do with rocks or even plants, with the exception of the universal 'rooting/seeding experiment' (carrot tops, soya beans, avocado pips, and so forth). In fact, some teachers have even told me they are afraid to teach science because they won't know how to answer the children's questions" (personal communication, 3 September 1999).

SUMMARY STATEMENTS

- **In most types of settings across the various nations, a group of children generally uses 1 or 2 rooms in an early childhood setting.**
- **In 29 of 31 types of settings across the 15 countries, 80% or more of the settings have rooms that are structured for children.**
- **In half of the types of settings, 80% or more of the settings have an adult-use room. In a few countries, the availability of an adult-use room varies greatly by type of setting.**
- **In 15 of 25 types of settings, the average amount of space per child is between 2 m^2 and 4 m^2. Eight types of settings have less than 2 m^2 per child, while the remaining 2 types of settings have more than 4 m^2 per child.**
- **In 29 of 31 types of settings across the 15 countries, 80% or more of the settings have outdoor play areas available for use by the children. Most of these play areas are located on the property, while many others are within walking distance of the early childhood setting. In most settings, children use the outdoor play area at least daily.**
- **Most types of settings have 4 different kinds of equipment/materials available for children: (1) gross-motor equipment, (2) fine-motor materials, (3) dramatic play materials, and (4) arts and crafts materials.**

VIII

SUPPORT SERVICES, OUTSIDE RESOURCES, AND HOME-SETTING CONTACT

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This chapter of findings includes data about the kinds of support services available in early childhood settings, the forms of outside resources tapped, and the types of home-setting contact utilized. These three types of findings are reported together since each one enhances basic program services by involving or coordinating with outside persons or agencies.

As stated in the literature review, children's health, nutritional, and psychosocial statuses all interact and affect their ability to learn. Thus, information about the types of support services (e.g., medical services, vision screening) available in early childhood programs in the participating countries is useful in obtaining an overall picture of the comprehensiveness of these programs. Support services are often considered more critical for settings in developing countries; however, the findings in this chapter allow the reader to assess the availability of such services in both developing and developed nations.

Outside resources serve many purposes. For example, an art or music teacher may provide children with instructional experiences beyond those the adults in the setting can provide. By organizing field trips, such as a visit to the zoo or to a music performance, staff can provide children with enriching experiences outside the setting.

Home-setting contact, or parent involvement, can be beneficial to all parties in early childhood settings. Basic communication between program staff and families ensures that all parties are knowledgeable about key events in a child's life, whether at home or in the early childhood setting (e.g., a new member of the family, acquisition of a new skill). Thus, this contact provides the link between the two primary environments of the child (in Bronfenbrenner's ecological systems theory, the child's mesosystem). As noted in the literature review, home-setting contacts can also benefit early childhood programs (e.g., parents help out in the classroom, staff gain a greater understanding of the children), provide information to families (e.g., on preventive health care for children), and enable parents to gain a deeper understanding of the goals and activities in the program.

AVAILABILITY OF SUPPORT SERVICES

To obtain information about the availability of support services in different types of settings in the study's 15 participating countries, the Provider Survey included a listing of 13 such services; respondents indicated whether or not each service was available either on site or by referral. An alphabetical listing of these 13 services is provided below.

(1) Dental services
(2) Developmental assessment of child
(3) Educational evaluation of child
(4) Hearing screening
(5) Medical services
(6) Nutritional services
(7) Parenting instruction
(8) Preventive/remedial health services
(9) Psychological services
(10) Second-language instruction
(11) Social work services
(12) Special education services
(13) Vision screening

FINDINGS BY KIND OF SUPPORT SERVICE

Table 8.1 (pp. 243–246) presents the kinds of support services identified by respondents as available in 50% or more of each type of setting. (A complete set of the findings from which these data are drawn can be found in Appendix E, Table E.1.) The table presents the findings in an ordered way, beginning with the support service offered on site by 50% or more of the *largest* number of different types of settings and ending with the service offered by 50% or more of the *smallest* number of types of settings. Thus, the second column in Table 8.1 shows that 50% or more of 13 types of settings offer educational evaluation of the child on site, and the last column indicates that 50% or more of only 2 types of settings offer dental services on site.

As Table 8.1 indicates, the 13 types of settings in which at least 50% offer educational evaluation of the child on site are located in 7 countries (Belgium, Finland, Ireland, Nigeria, Romania, Thailand, United States). Fifty percent or more of an additional 8 types of settings offer this service by referral. Of the 13 countries reporting findings, there are only 2 countries in which a majority of settings of any type do *not* offer this service, either on site or by referral: Greece and Hong Kong. The fact that European and Asian countries are included in both groups of nations (i.e., those offering this service on site and those not offering the service either on site or by referral) suggests that the availability of educational evaluations is *not* related to geographical location.

At the other extreme, Table 8.1 indicates that a majority of only 2 types of settings in 1 country offer dental services on site (both types of settings in Thailand). These services are available by referral in 50% or more of another 10 types of settings across 5 countries.

Table 8.1 Percentage of settings (≥ 50%) with various kinds of support services available

		Educational Evaluation of Child		Vision Screening		Hearing Screening		Nutritional Services	
Country/Territory	*N*	On Site	By Referral	On Site	By Referral	On Site	By Referral	On Site	By Referral
Belgium (Fr.—Liège Province, Brussels)									
Public nursery schools	28	59		100		100		NI	NI
Private nursery schools	27	85		100		100		NI	NI
China (PRC, 6 provinces)									
Urban kindergartens	216	NI	NI	73		55		74	
Rural kindergartens	191	NI	NI	59					
Finland									
Child care centers	66	57						66	
Greece (urban)									
Public kindergartens[a]	49								
Child care centers	22							78	
Hong Kong (SAR)									
Kindergartens	26								
Child care centers	25								
Indonesia (Java)									
Urban kindergartens	39		78						
Rural kindergartens	28		85						
Ireland									
Nondisadvantaged preschools	25				53		58		
Disadvantaged preschools	29				59		57		
Disadvantaged national schools	27		50		61		61		
Nondisadvantaged national schools	28	61		52		52			
Italy									
Preprimary schools	143		54						
Nigeria (3 states)									
Urban group settings	47	62							
Rural group settings	18	80							
Poland									
Urban preschools	75		55						
Rural preschools	49		54						
Romania									
Urban normal-day kindergartens	24	96			96		96		100
Rural normal-day kindergartens	21	100			100		100		100
Urban long-day kindergartens	24	96		83		83			100
Slovenia									
Kindergartens[a]	44		55						
Spain (Catalonia)									
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI
Thailand									
Educational programs	31	84		61		51		77	
Child care centers	22							50	
United States (6 sites)									
Head Start centers[a]	31	65		65		65		70	
Public school preschools	24	50	50	81		81		71	
Other organized programs[a]	45	70			56		63	61	

Note. N is the number of settings sampled for each type of setting in a country. The symbol [a] indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table 8.1 (cont.) Percentage of settings (≥ 50%) with various kinds of support services available

Country/Territory	N	Developmental Assessment On Site	Developmental Assessment By Referral	Preventive/ Remedial Health Services On Site	Preventive/ Remedial Health Services By Referral	Parenting Instruction On Site	Parenting Instruction By Referral
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28			100			
Private nursery schools	27	82		100			
China (PRC, 6 provinces)							
Urban kindergartens	216	51		68		52	
Rural kindergartens	191						
Finland							
Child care centers	66					69	
Greece (urban)							
Public kindergartens°	49						
Child care centers	22						
Hong Kong (SAR)							
Kindergartens	26						
Child care centers	25						
Indonesia (Java)							
Urban kindergartens	39		59				
Rural kindergartens	28						
Ireland							
Nondisadvantaged preschools	25						
Disadvantaged preschools	29		70				
Disadvantaged national schools	27		66				
Nondisadvantaged national schools	28		69				
Italy							
Preprimary schools	143						
Nigeria (3 states)							
Urban group settings	47						
Rural group settings	18						
Poland							
Urban preschools	75		78				
Rural preschools	49		76			50	
Romania							
Urban normal-day kindergartens	24		100		100		
Rural normal-day kindergartens	21		100		100		
Urban long-day kindergartens	24		100		100		
Slovenia							
Kindergartens°	44				58		
Spain (Catalonia)							
Public kindergartens	29	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI
Thailand							
Educational programs	31	81		65			
Child care centers	22			54			
United States (6 sites)							
Head Start centers°	31	78			96	78	
Public school preschools	24	76			81	86	
Other organized programs°	45	61			77		

Note. N is the number of settings sampled for each type of setting in a country. The symbol ° indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table 8.1 (cont.) Percentage of settings (≥ 50%) with various kinds of support services available

		Second-Language Instruction		Medical Services		Psychological Services	
Country/Territory	*N*	On Site	By Referral	On Site	By Referral	On Site	By Referral
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28			NI	NI	100	
Private nursery schools	27			NI	NI	100	
China (PRC, 6 provinces)							
Urban kindergartens	216			66			
Rural kindergartens	191						
Finland							
Child care centers	66						
Greece (urban)							
Public kindergartens*	49						100
Child care centers	22			57			
Hong Kong (SAR)							
Kindergartens	26						
Child care centers	25						
Indonesia (Java)							
Urban kindergartens	39				70		
Rural kindergartens	28						
Ireland							
Nondisadvantaged preschools	25				63		58
Disadvantaged preschools	29				62		86
Disadvantaged national schools	27	65			65		81
Nondisadvantaged national schools	28	92			58		92
Italy							
Preprimary schools	143					64	
Nigeria (3 states)							
Urban group settings	47						
Rural group settings	18	57					
Poland							
Urban preschools	75						96
Rural preschools	49				54		87
Romania							
Urban normal-day kindergartens	24	50			92		100
Rural normal-day kindergartens	21				95		100
Urban long-day kindergartens	24	75		96			100
Slovenia							
Kindergartens*	44				55		
Spain (Catalonia)							
Public kindergartens	29	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI
Thailand							
Educational programs	31			61			
Child care centers	22						
United States (6 sites)							
Head Start centers*	31		65		74	52	
Public school preschools	24		50		76		57
Other organized programs*	45						86

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

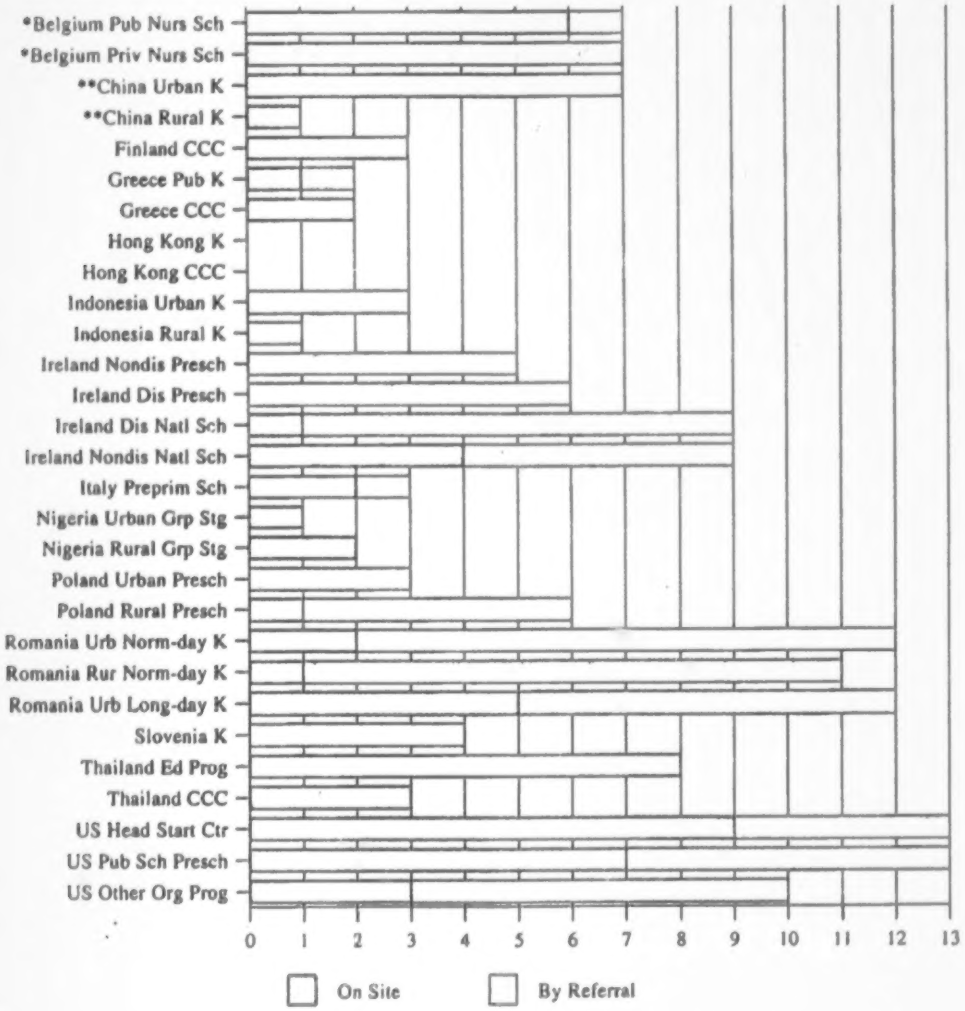
Table 8.1 (cont.) Percentage of settings (≥ 50%) with various kinds of support services available

Country/Territory	N	Social Work Services		Special Education Services		Dental Services	
		On Site	By Referral	On Site	By Referral	On Site	By Referral
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28	100			52		
Private nursery schools	27	100					
China (PRC, 6 provinces)							
Urban kindergartens	216						
Rural kindergartens	191						
Finland							
Child care centers	66						
Greece (urban)							
Public kindergartens*	49			100			
Child care centers	22						
Hong Kong (SAR)							
Kindergartens	26						
Child care centers	25						
Indonesia (Java)							
Urban kindergartens	39						
Rural kindergartens	28						
Ireland							
Nondisadvantaged preschools	25		56				
Disadvantaged preschools	29		78				
Disadvantaged national schools	27		87				77
Nondisadvantaged national schools	28		65				81
Italy							
Preprimary schools	143	70					
Nigeria (3 states)							
Urban group settings	47						
Rural group settings	18						
Poland							
Urban preschools	75						
Rural preschools	49						68
Romania							
Urban normal-day kindergartens	24		100		100		100
Rural normal-day kindergartens	21		86		100		100
Urban long-day kindergartens	24		96		100		100
Slovenia							
Kindergartens*	44						58
Spain (Catalonia)							
Public kindergartens	29	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI
Thailand							
Educational programs	31					71	
Child care centers	22					63	
United States (6 sites)							
Head Start centers*	31	83		78			96
Public school preschools	24		62	52			56
Other organized programs*	45		66		68		65

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

AVAILABILITY OF SUPPORT SERVICES IN VARIOUS COUNTRIES

It is also useful to look at the availability of support services in different types of settings across countries. Figure 8.1, below, presents the number of services that a majority of respondents in each type of setting indicated are available, either on site or by referral. Two countries of note are Romania and the United States. In Romania, nearly every kind of support service is available in the majority of each of the 3 types of early childhood settings, although many of these services are more likely to be



*No information provided for 2 support services

**No information provided for 1 support service

Figure 8.1 Number of support services in 50% or more of each type of setting

available by referral than on site. It is interesting to note that urban long-day kindergartens offer more support services on site than do either of the normal-day kindergartens.

In the United States, all 13 kinds of support services are available at Head Start centers and at public school preschools; more than half are available on site. This is not surprising, since both of these types of settings enroll large proportions of at-risk children. Even in other organized programs, a type of American setting that serves a more general population of families and children, 10 of the 13 support services are available in the majority of settings.

Figure 8.1 shows a few countries in which only a small number of support services are available in the majority of settings of any type. These countries include (1) Hong Kong, in which no kinds of support services are offered by a majority of either kindergartens or child care centers, and (2) Nigeria, where only 1 or 2 different kinds are available in a majority of either type of setting (urban group settings or rural group settings).

Finally, the information in Figure 8.1 suggests that the availability of support services is generally similar for different types of settings within a country. This is true for the 2 countries in which large numbers of different kinds of support services are available (Romania, United States) as well as for the 2 countries that offer few or no support services (Hong Kong, Nigeria). Belgium provides another example. In this country, a majority of both public and private nursery schools have 7 different support services available, although there is a minor difference between the two types of settings in the number available on site and the number available by referral.

USE OF OUTSIDE RESOURCES

To obtain information about the use of outside resources, the Provider Survey included a general question about whether or not the setting utilizes any outside resources. If respondents answered yes, they indicated which of 8 different resources are used. An alphabetical listing of these 8 outside resources is provided below.

(1) Athletics
(2) Art teacher
(3) Community helpers/police/firefighters
(4) Field trips
(5) Librarian
(6) Movement/dance teacher
(7) Music teacher
(8) Parents/friends with special talents

GENERAL USE OF OUTSIDE RESOURCES

Table 8.2 (facing page) presents the percentage of respondents in each type of setting who indicated they use one or more kinds of outside resources. As can be seen in the table, in countries such as Finland, Poland, and Spain, all settings reported using these resources. The findings in Table 8.2 also indicate that in 11 different types of settings across 7 countries, 90% or more of settings use outside resources (Finland, Poland, and Spain all at 100%, plus Hong Kong, Ireland, Slovenia, and the United States). The picture is very different for countries such as Greece, Indonesia, and Nigeria, where less than half of all types of settings reported using any kind of outside resources. In 9 different types of settings across 6 countries, less than 50% of settings reported using outside resources (all types of settings in Greece, Indonesia, and Nigeria, plus 1 type of setting each in China, Romania, and Thailand).

Table 8.2 Percentage of settings using one or more types of outside resources

Country/Territory	*N*	*N* Reporting Data	% Using Outside Resources	*N* Using Outside Resources
Belgium (Fr.—Liege Province, Brussels)				
Public nursery schools	28	28	83	23
Private nursery schools	27	27	78	21
China (PRC, 6 provinces)				
Urban kindergartens	216	216	50	108
Rural kindergartens	191	191	22	42
Finland				
Child care centers	66	61	100	61
Greece (urban)				
Public kindergartens*	49	33	45	15
Child care centers	22	22	26	6
Hong Kong (SAR)				
Kindergartens	26	24	79	19
Child care centers	25	23	96	22
Indonesia (Java)				
Urban kindergartens	39	37	41	15
Rural kindergartens	28	27	37	10
Ireland				
Nondisadvantaged preschools	25	23	70	17
Disadvantaged preschools	29	24	96	23
Disadvantaged national schools	27	25	80	20
Nondisadvantaged national schools	28	26	85	22
Italy				
Preprimary schools	143	136	56	76
Nigeria (3 states)				
Urban group settings	47	46	9	4
Rural group settings	18	15	33	5
Poland				
Urban preschools	75	75	100	78
Rural preschools	49	46	100	46
Romania				
Urban normal-day kindergartens	24	24	67	16
Rural normal-day kindergartens	21	21	19	4
Urban long-day kindergartens	24	24	75	18
Slovenia				
Kindergartens*	44	31	90	28
Spain (Catalonia)				
Public kindergartens	29	29	100	29
Private kindergartens	25	25	100	25
Thailand				
Educational programs	31	31	35	11
Child care centers	22	22	68	15
United States (6 sites)				
Head Start centers*	31	22	91	20
Public school preschools	24	21	100	21
Other organized programs*	45	30	100	30

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

In some countries (e.g., Belgium, Indonesia, Poland), the percentages of settings using outside resources are identical or similar across the various types of settings within the country (i.e., less than 20% difference). However, in other countries (e.g., China, Romania, Thailand), the percentages of settings using outside resources vary moderately or greatly (i.e., by more than 20%) for different types of settings within a country.

SPECIFIC FINDINGS ON USE OF OUTSIDE RESOURCES

Table 8.3 on the facing page presents the categories of outside resources used by 50% or more of the settings for each of the 31 different types of settings. (A complete set of the findings from which Table 8.3 data are drawn can be found in Appendix E, Table E.2.) This table presents the findings in an ordered manner, beginning with the category of outside resources used by 50% or more of the *largest* number of types of settings and ending with the category used by 50% or more of the *smallest* number of types of settings. Thus, the first column of specific categories shows that 50% or more of 26 different types of settings use field trips, and the last column shows that there are no types of settings in which 50% or more use an art teacher as an outside resource.

If we look at the findings presented in Table 8.3 by type of setting, we can see that 9 different types of settings use field trips as their only outside resource, while 15 other types of settings reported using between 1 and 3 different kinds of resources, usually field trips and one or two other kinds. Examples of this latter group are given below.

• Belgium	Public nursery schools	Field trips, parents/friends, athletics teacher
• Indonesia	Rural kindergartens	Field trips, community helpers
• Nigeria	Urban group settings	Field trips, music teacher

In 5 types of settings in 4 countries (Finland, Poland, Slovenia, United States), a majority reported using as many as 4 or 5 different kinds of outside resources.

Greek kindergarten children take a field trip to the harbor at Thessaloniki.

Table 8.3 Percentage of settings (≥50%) using various categories of outside resources

Country/Territory	*N*	% Using Outside Resources	*N* Using Outside Resources	Field Trips	Parents/Friends With Special Talents	Community Helpers/ Police/Firefighters	Librarian	Movement/ Dance Teacher	Music Teacher	Athletics Teacher	Art Teacher
Belgium (Fr.—Liege Province, Brussels)											
Public nursery schools	28	82	23	70	74					61	
Private nursery schools	27	78	21	67	81						
China (PRC, 6 provinces)											
Urban kindergartens	216	50	108	93				NI			
Rural kindergartens	191	22	42	88	50			NI			
Finland											
Child care centers	66	100	61	66	57	97	57				
Greece (urban)											
Public kindergartens*	49	45	15	93	67						
Child care centers	22	26	6	67							
Hong Kong (SAR)											
Kindergartens	26	79	19	95							
Child care centers	25	96	22	86							
Indonesia (Java)											
Urban kindergartens	39	41	15	67				67			
Rural kindergartens	28	37	10	60		50					
Ireland											
Nondisadvantaged preschools	25	70	17	88		59					
Disadvantaged preschools	29	96	23	74							
Disadvantaged national schools	27	80	20	60	50	85					
Nondisadvantaged national schools	28	85	22	50	50	77					
Italy											
Preprimary schools	143	56	76	89	76						
Nigeria (3 states)											
Urban group settings	47	9	4	100					75		
Rural group settings	18	33	5	100	60						
Poland											
Urban preschools	75	100	75	NI	85	91		77	56		
Rural preschools	49	100	49	NI	84	89	54				
Romania											
Urban normal-day kindergartens	24	67	16								
Rural normal-day kindergartens	21	19	4	100							
Urban long-day kindergartens	24	75	18	50							
Slovenia											
Kindergartens*	44	90	28	100	86	64	50	50			
Spain (Catalonia)											
Public kindergartens	29	100	29	100	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	100	25	100	NI	NI	NI	NI	NI	NI	NI
Thailand											
Educational programs	31	35	11								
Child care centers	22	68	15		100						
United States (6 sites)											
Head Start centers*	31	91	20	100	100	100	80				
Public school preschools	24	100	21	100	100	100	67				
Other organized programs*	45	100	30	93	97	97					

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

As noted earlier, if we look at the findings presented in Table 8.3 by category of outside resources, it is clear that the category used by the largest number of different types of settings of various types is field trips ($n = 26$ of 29 types of settings). The 3 types of settings in which the majority do not use field trips are listed below.

Romania	Urban normal-day kindergartens
Thailand	Educational programs, child care centers

A majority of settings of 16 different types across 11 countries reported involving parents/friends with special talents in their centers. These 11 countries included ones from all 4 continents (Africa, Asia, Europe, North America), indicating that use of this type of resource is widespread. As Table E.2 in Appendix E shows, there are 4 countries in which only a very small percentage of settings reported using this category of outside resource (Hong Kong, Indonesia, Romania, and Spain).

A majority of settings in 6 countries (11 types of settings) reported inviting community helpers/police/firefighters to the setting or visiting these persons. However, the findings in Table 8.3 indicate that the remaining 5 categories of outside resources are each used by a majority of only 5 or fewer different types of settings. For example, there is no type of setting in which a majority use an outside art teacher, and a majority of only 1 type of setting (public nursery schools in Belgium) use an athletics teacher as an outside resource.

FREQUENCY OF HOME-SETTING CONTACT

To learn about the types of home-setting contact used by various settings, the Provider Survey included a set of detailed questions about the type and frequency of contact between teachers and parents during the previous 6 months. (Section E of the Provider Survey in Appendix A lists these items.) The questionnaire included items about 12 different types of such contact. These 12 types of contact, grouped into 3 general categories, are listed below.

Individual face-to-face contact between teacher/caregiver and parent
Meetings with individual parents at setting (including drop-off and pickup of the child)
Home visits with parents
Social visits or extended personal conversation
Open-door policy for parent visits to center

Parent participation in child's room or on advisory board
Parent volunteering for special occasion
Parent participation as aide
Parent participation as teacher/caregiver
Parent participation on advisory board

Group meetings, telephone or written communication
Parent group meetings
Other group meetings
Newsletters or general notes to parents
Individual notes or telephone calls to parents

Table E.3 in Appendix E presents the findings for these 12 types of home-setting contact for all 31 types of settings across the 15 participating countries. For each type of contact, the findings are reported in 3 major categories of frequency of occurrence: (1) never occurs or occurs only *rarely* (e.g., 1 time in 6 months); (2) occurs *occasionally* but less than 1 time per month, on average; and (3) occurs *frequently*, that is, 1 time or more per month, on average.

To provide an international picture of home-setting contact, the findings will first be examined cross-nationally by type of contact. Then the emphasis will shift to specific countries and types of settings, with brief statements summarizing the kinds of contact primarily used in each type of setting.

Figure 8.2 (following page) presents graphically the home-setting contact findings reported in Table E.3. Each *X* in the figure represents a type of contact reported as used occasionally by at least 50% of the settings of that type. For example, the *X* for China's urban kindergartens in the *parent group meeting* column means that at least 50% of the settings of this type reported using this category of contact occasionally (i.e., less than once a month, on average). Each *XX* in the figure represents a type of contact used frequently by at least 50% of the settings of that type. For example, the *XX* for Greek public kindergartens for the category of *meetings with individual parents at setting* indicates that at least 50% of the settings of this type reported using this kind of contact frequently (i.e., one time or more per month, on average).

In both the appendix and the figure, the types of home-setting contact are presented in an ordered manner. That is, the first type listed, *meetings with individual parents at setting*, is used by at least 50% of the *largest* number of different types of early childhood settings reporting findings (that is, 25 different types of settings). The final category, *parent participation as teacher*, is used by a majority of the *smallest* number of different types of settings (that is, 1 type of setting).

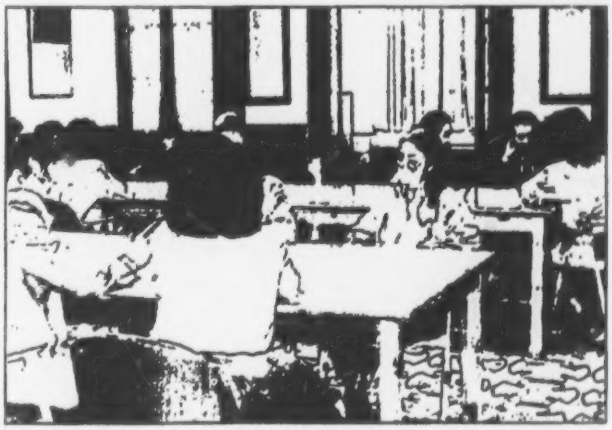
CROSS-NATIONAL FINDINGS

Meetings with individual parents at setting

This type of home-setting contact was reported by teachers/caregivers in at least 50% of settings for 25 of the 27 different types of settings with data available. Of these 25 types of settings using meetings with individual parents at the setting, 6 types noted that this form of contact occurs once a month or more often, on average. Interestingly, these 6 types come from only 3 countries: Greece, Poland, and Romania.

Parent group meetings

Teachers in at least 50% of the settings for 17 of 29 types of settings reported using this form of home-setting contact at least occasionally. Only 1 of the 17 (Head Start centers in the United States) noted that these meetings occur monthly or more frequently.



In Spain, teachers in a private kindergarten setting hold meetings with individual parents.

Country/Territory	Meetings With Individual Parents at Setting	Parent Group Meetings	Newsletters or General Notes	Social Visits or Extended Personal Conversation	Open-Door Policy for Parent Visits to Center	Individual Notes or Phone Calls to Parents	Home Visits With Parents	Other Group Meetings	Parent Volunteering for Special Occasion	Parent Participation as Aide	Parent Participation on Advisory Board	Parent Participation as Teacher
Belgium (Fr.—Liège Province, Brussels)												
Public nursery schools	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Private nursery schools	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
China (PRC, 6 provinces)												
Urban kindergartens	NA	X		NA		NA		NA	NA	NA	NA	
Rural kindergartens	NA			NA		NA	X	NA	NA	NA	NA	
Finland												
Child care centers	X		XX	X		X		X				
Greece (urban)												
Public kindergartens*	XX	X										
Child care centers	XX	X				X						
Hong Kong (SAR)												
Kindergartens	X		XX					NA		NA		
Child care centers	X		XX					NA		NA		
Indonesia (Java)												
Urban kindergartens	X											
Rural kindergartens												
Ireland												
Nondisadvantaged preschools	X											
Disadvantaged preschools	X											
Disadvantaged national schools	X	X	XX									
Nondisadvantaged national schools	X		XX									
Italy												
Preprimary schools	X	X										
Nigeria (3 states)												
Urban group settings	X	X			X							
Rural group settings					X							
Poland												
Urban preschools	X	X		XX	X				X			
Rural preschools	XX	X		XX	X				X			
Romania												
Urban normal-day kindergartens	XX	X					X					
Rural normal-day kindergartens	XX	X					X					
Urban long-day kindergartens	XX	X					X					
Slovenia												
Kindergartens*	X	X	XX					X				
Spain (Catalonia)												
Public kindergartens	X	X	X			X						
Private kindergartens	X		X			X						
Thailand												
Educational programs	X	X		X								
Child care centers	X			X								
United States (6 sites)												
Head Start centers*	X	XX	XX	X	X	X	X	X	X	X	X	X
Public school preschools	X	X	X	XX	X		X	X	X	X	X	
Other organized programs*	X	X	X	X	X	X		X	X			

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NA indicates data not applicable. *X* stands for type of contact used *occasionally* by > 50% of settings (i.e., more than once in 6 months but less than 1 time per month). *XX* stands for type of contact used *frequently* by ≥ 50% of settings (i.e., one time or more per month).

Figure 8.2 Types of home-setting contact used with different frequencies by teachers/caregivers

Newsletters or general notes

This category of home-setting contact is used by teachers in at least 50% of the settings in 11 of the 29 types of early childhood settings reporting findings. Of these 11 types of settings, 7 contain *XX* in the figure and 4 contain *X*. Thus, this form of contact is more likely to be used frequently than occasionally by those settings choosing to use it.

Other types of home-setting contact

Six of the remaining 9 categories of home-setting contact were reported by teachers in at least 50% of settings for 5–8 different types of settings, with most of the usage being occasional (i.e., less than once a month). For the most part, these 5–8 settings include at least 2 types of settings from the United States and settings from 1 to 3 other countries. For example, the category *social visits or extended personal conversation* was reported to be used by the 3 types of U.S. settings as well as settings in Finland, Poland, and Thailand.

At the beginning of this section, the 12 types of home-setting contact were grouped into three major categories. The ordering of the 12 types of contact in Table E.3 and Figure 8.2 reveals that the 4 forms of contact under the general heading *parent participation in child's room or on advisory board* are in the final 4 columns of the figure. This indicates that these forms of contact are rarely used by staff in any type of setting in any country. While a majority of settings in 2 countries (Poland, United States) reported using parent volunteers for special occasions as a means of parent involvement, only in U.S. settings did teachers in a majority of settings report using the remaining 3 categories *(parent participation as aide, on advisory board,* or *as teacher)* as forms of contact.

FINDINGS FOR INDIVIDUAL COUNTRIES

China

Teachers in China were asked about their use of 5 different forms of home-setting contact. As Figure 8.2 indicates, staff in at least 50% of urban kindergartens reported using parent group meetings as a major form of contact. Figure 8.2 also indicates that teachers in a majority of rural kindergartens reported using home visits as a primary means of contact. The findings in Table E.3 indicate that 35% of rural kindergarten teachers reported making home visits frequently (once a month or more often), and another 37% reported making them occasionally. Considering the time and effort required to make home visits, it is interesting to note that 72% of teachers in rural kindergartens do so.

Finland

Figure 8.2 shows *X*s for 5 different forms of home-setting contact for child care centers in Finland. As the data in Table E.3 show, the findings for 2 of these 5 categories are worthy of special note: (1) *newsletters or general notes*—staff in 58% of settings reported using this form of contact frequently and staff in 37% of settings reported using it at least occasionally, for a combined total of 95%; (2) *individual notes or telephone calls to parents*—56% of teachers reported at least occasional use and 23% more reported that they use this form of contact frequently, for a combined total of 79% of staff using this means of parent contact.

Greece

Teachers/caregivers in the 2 types of settings in Greece (public kindergartens, child care centers) generally reported using similar forms of home-setting contact. In settings of both types, staff in at least 50% of the settings have meetings with individual parents at the setting frequently. Also, in settings of both types a majority of teachers/caregivers reported that parents attend parent group meetings occasionally. Only in a majority of child care centers did staff note that they occasionally use individual notes or phone calls to parents.

Hong Kong

As in other countries, the two types of early childhood settings in Hong Kong (kindergartens, child care centers) utilize similar types of home-setting contact. In both types of settings, teachers/caregivers in 50% or more of the settings reported using newsletters or general notes frequently and having meetings with individual parents at the setting occasionally.

Indonesia

Figure 8.2 includes only a single *X* for any type of setting in Indonesia (urban kindergartens—*meetings with individual parents at setting),* suggesting that parent-teacher communication is not presently a high priority in that country. However, the detailed data in Table E.3 indicate that 39% of staff in urban kindergartens and 31% of staff in rural kindergartens reported using newsletters or general notes as a form of contact.

Ireland

The teachers in at least 50% of all 4 types of settings in Ireland reported having meetings with individual parents at the setting occasionally. Also, as Figure 8.2 shows, staff in at least 50% of both types of national schools noted that they use newsletters or general notes frequently. Finally, staff at a majority of disadvantaged national schools reported having parent group meetings occasionally.

Italy

As indicated in Figure 8.2, Italian preprimary school teachers in at least 50% of settings indicated that they use 2 types of home-setting contact occasionally—meetings with individual parents at the setting and parent group meetings.

Nigeria

Teachers in a majority of both urban and rural group settings reported having an open-door policy for parent visits to the center. In addition, 50% or more of staff in urban group settings noted that they occasionally used 2 other forms of parent involvement: meetings with individual parents at the setting and parent group meetings.

Poland

Poland is 1 of 3 countries in which teachers reported using the most types of home-school contact (5). For both urban and rural preschools, these 5 types are meetings with individual parents at the setting, parent group meetings, social visits or extended personal conversation, an open-door policy for parent visits to the center, and parent volunteering for special occasions.

Romania

A noteworthy finding from the data for Romania is that 50% or more of the teachers in all 3 types of kindergartens reported making home visits with parents at least occasionally. As seen in Table E.3, the percentages are as follows: urban normal-day kindergartens = 71%, rural normal-day kindergartens = 81%, and urban long-day kindergartens = 58%. Also, a high percentage of staff in all 3 types of settings reported that they have meetings with individual parents at the setting frequently (77% to 83%) and hold parent group meetings at least occasionally (87% to 96%).

Slovenia

The *X*s shown in Figure 8.2 indicate that 50% or more of kindergarten teachers reported using 1 form of home-setting contact frequently (newsletters or general notes) and 3 other forms at least occasionally: (1) meetings with individual parents at the setting, (2) parent group meetings, and (3) other group meetings.

Spain

Teachers/caregivers in a majority of both public and private kindergartens reported using 3 different forms of home-school contact at least occasionally: (1) meetings with individual parents at the setting, (2) newsletters or general notes, and (3) individual notes or phone calls to parents. In addition, staff in a majority of public kindergartens reported that parent group meetings are held occasionally.

Thailand

A majority of the staff in educational programs reported the occasional use of the following 3 forms of home-setting contact: meetings with individual parents at the setting, parent group meetings, and social visits or extended personal conversation. The findings were similar for child care centers for 2 of the 3 categories (meetings with individual parents, social visits).

United States

As Figure 8.2 indicates, the findings for the United States are distinguished by the large number of different forms of home-setting contact reported by 50% or more of teachers/caregivers in all 3 types of settings. For example, a majority of Head Start center staff reported using all 12 forms of contact at least occasionally, with 2 forms (newsletters or general notes, parent group meetings) being used frequently. Staff in 50% or more of public school preschool settings noted that they use 10 different forms of contact at least occasionally and use 1 form (social visits or extended personal conversation) frequently. Finally, 50% or more of other organized program staff reported that they use 8 forms of parent contact at least occasionally.

DISCUSSION

AVAILABILITY OF SUPPORT SERVICES

In general, the findings show wide variation in the availability of support services in settings across the 15 participating nations. What are the results when we examine these findings by different categories of settings, such as those labeled as education and those labeled as care? How do the findings compare among settings in developing countries and those in developed countries? [Note: In each case the findings discussed below refer to support services available in a majority of settings of a particular type (i.e., findings reported in Table 8.1 and Figure 8.1).]

Of the 29 types of settings reporting findings about support services, 24 are labeled as educational settings (or described as such in the national profiles) and 4 are labeled as care settings.

(The remaining type of setting, other organized programs in the United States, has been deleted from this particular discussion since it includes both education settings and care settings.) The number of support services available in the 24 educational settings ranges from 0 to 13, with no single number clearly predominant. While the number of care settings is small ($n = 4$), the number of support services available in these settings ranges from 0 to 3. Though these findings should be interpreted with great caution, they suggest that care settings generally offer a more limited number of support services than do education settings—at least for the set of countries participating in this study. It is interesting to note that 3 of the 4 care settings are in developed countries (Finland, Greece, Hong Kong).

If we divide the total group of settings reporting the availability of support services into those from developing countries (China, Indonesia, Nigeria, Poland, Romania, Thailand) and those from developed countries (all remaining countries), the following picture emerges. For the 13 types of settings from developing countries, the number of support services available ranges from 1 to 12, with 7 of the 13 (54%) having 1 to 3 services available. For the 16 types of settings from developed countries, the number of support services available ranges from 0 to 13, with no single number predominant.

In the literature review we noted that support services may be more important for early childhood settings in developing countries. However, the data reported here show that these countries do not in fact offer more services than programs in developed countries. Perhaps this is due to lack of funding or to the difficulty of coordinating the various agencies involved in providing such services. An interesting contrast can be seen when the findings are examined for the subset of 4 settings from developed countries serving primarily at-risk or low-income children (i.e., the 2 disadvantaged settings in Ireland and the Head Start centers and public school preschools in the United States). Three of these 4 types of settings offer 9 to 12 support services.

USE OF OUTSIDE RESOURCES

Respondents in a majority of 22 types of settings reported that they use outside resources to supplement basic services. The most common outside resource is the use of field trips. Several of the national profiles offer specific examples of field trip destinations. For example, Italy's national profile states that *children regularly take advantage of the cultural, artistic, and educational opportunities available in the local community (e.g., theater, cinema, museums, music, and sports)* (Chapter 3, p. 85). Thailand's profile notes that *occasional field trips are taken to a nearby Buddhist temple or zoo* (Chapter 3, p. 104). Locations and activities mentioned in other national profiles include parks, children's concerts, and children's theater presentations.

Staff in many types of settings in several countries responded that they ask parents and friends to visit the classroom to share information or talents with the children. The U.S. national profile mentions that these *presentations might be designed to familiarize children with aspects of different cultures and professions or they might center around a special art or music project* (Chapter 3, p. 109). A third type of outside resource mentioned by several respondents was inviting community helpers to the room to share information with the children. An example of this type of outside resource is noted in the Indonesian national profile: *Many kindergartens also have educational presentations by community resource persons, such as police or health officers* (Chapter 3, p. 77).

Forms of Home-Setting Contact

In general, most of the early childhood settings participating in the study reported using 1 to 3 kinds of home-setting contact. The major exceptions to this general finding include (1) the urban and rural preschools in Poland, where staff reported using 5 different kinds of contact, and (2) the 3 types of group settings in the United States, where staff noted the use of 8–12 kinds of contact.

The findings in Figure 8.2 and the information in the national profiles regarding home-setting contact show great consistency. The findings indicated that there are 3 kinds of contact used more frequently than other kinds: (1) meetings with individual parents at the setting, (2) parent group meetings, and (3) newsletters or general notes. Many of the national profiles specifically mention 1 or more of these 3 forms of contact.

Particularly interesting statements relating to parent involvement are found in the Greek and Polish national profiles. According to the Greek profile, *by law, group parent meetings must be scheduled two or three times per year* (Chapter 3, p. 70). This is consistent with the finding that a majority of staff in both public kindergartens and child care centers reported having parent group meetings occasionally (i.e., less than once a month, on average). The Greek national profile also states that *informal contact between parents and staff takes place daily during pickup and drop-off times* (Chapter 3, p. 70). This information is also confirmed by the study, which noted frequent meetings between staff and parents at the setting.

Poland's national profile states that *the Educational System Act specifies that parents have a right to participate in their children's preschool education; however, parent participation is generally limited to fundraising activities, provision of supplies, and organization of various events, such as special holiday celebrations. Parents may participate in the preschool council, but they have no control over the choice of teacher, curriculum, or educational methods. Individual and group parent-teacher meetings are held, but notes, phone calls, and newsletters are uncommon* (Chapter 3, p. 93). In general, these statements are supported by the findings reported in this chapter, particularly the occasional or frequent use of parent group meetings, parent-teacher individual meetings at the setting, and parent volunteers. The findings also include the frequent occurrence of social visits or extended personal conversation between staff and parents; this may reflect a situation where staff and parents live in the same area and encounter one another while shopping or attending meetings or functions.

Finally, there are a few comments about the large number of different forms of home-setting contact reported by staff in the 3 types of settings in the United States. As noted in the U.S. national profile, program guidelines

Drop-off and pickup times offer opportunities for conversation between parents and teachers in this Polish urban preschool.

for Head Start centers specify several different forms of parent involvement. Therefore, the finding that all 12 forms of home-setting contact are used either occasionally or frequently is not surprising. Many public school preschools follow some, if not all, of the Head Start guidelines for program operation, so it is also not surprising that these settings use 10 of the 12 forms of home-setting contact. Both of these types of settings primarily serve children from low-income or at-risk populations, and contact between families and programs is seen as vital to ensuring positive outcomes for children. The most "typical" findings for the United States probably come from the other organized programs, which enroll children from many types of families (i.e., middle-income as well as low-income). Even in these settings, staff reported using 8 of the 12 forms of home-setting contact either occasionally or frequently, suggesting that parent involvement is more prevalent in the United States than in the other countries participating in the study.

SUMMARY STATEMENTS

- **Across participating nations, approximately 50% or more of the various types of early childhood settings offer one or more of the following support services: (1) educational evaluation of the child, (2) vision screening, (3) hearing screening.**
- **In 22 of 31 types of settings, a majority of respondents indicated that they use outside resources to supplement basic services. The most common resource is the use of field trips.**
- **Of the 29 types of settings reporting findings on home-setting contact, 20 reported using 1 to 3 different kinds of contact regularly. Of the remaining 9 types of settings, 1 reported using no form of contact, while 8 types of settings use 4–12 types of contact. The most frequently reported kinds of home-setting contact were meetings with individual parents at setting, parent group meetings, and newsletters or general notes.**

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IX

CHARACTERISTICS OF LEAD TEACHERS AND CAREGIVERS IN EARLY CHILDHOOD SETTINGS

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As noted in the literature review in Chapter 2, several research studies have related teacher characteristics to the quality of services in early childhood settings (Cost, Quality, & Outcomes Study Team, 1995; Whitebook, Howes, & Phillips, 1989). These characteristics generally include such aspects as years of education and years of experience.

Also, as indicated in the national profiles presented in Chapter 3, many countries have specific criteria for teacher education and training as well as experience. That is, nearly every country requires minimum educational levels, and in a few countries adults are required to work in an early childhood setting for a "practice" period before becoming a lead teacher/caregiver in such a setting.

The Provider Survey contained several questions regarding information about teacher characteristics, including the following: *How many years of full-time education have you completed? How many years have you been working with 3- to 5-year-old children?* and *How many years have you been working here* [in this setting]? Tables 9.1 through 9.3 present the findings for teacher characteristics for the various types of settings across the participating countries.

GENERAL CHARACTERISTICS

AGE

The data presented in Table 9.1 (following page) indicate that the average age for teachers (across the 30 types of settings in 14 countries reporting findings) is between 26 and 43 years. It is interesting to note that some teachers in rural kindergartens in China are as young as 17 years old and that teachers in many types of settings in a majority of the countries are 60 or older. Within nearly every

Table 9.1 Age and gender characteristics of teachers

Country/Territory	*N*	Age Mean (yr)	 Range (yr)	% Female
Belgium (Fr.—Liège Province, Brussels)				
Public nursery schools	28	38.0	23–52	100
Private nursery schools	27	36.3	24–55	100
China (PRC, 6 provinces)				
Urban kindergartens	216	29.4	18–56	100
Rural kindergartens	191	26.4	17–68	99
Finland				
Child care centers	66	34.5	21–50	92
Greece (urban)				
Public kindergartens*	49	39.5	27–56	100
Child care centers	22	34.7	27–53	100
Hong Kong (SAR)				
Kindergartens	26	29.3	18–45	100
Child care centers	25	29.5	18–45	100
Indonesia (Java)				
Urban kindergartens	39	27.9	21–43	100
Rural kindergartens	28	32.0	21–50	100
Ireland				
Nondisadvantaged preschools	25	40.0	20–55	100
Disadvantaged preschools	29	38.0	23–60	100
Disadvantaged national schools	27	34.7	22–47	100
Nondisadvantaged national schools	28	42.5	22–65	100
Italy				
Preprimary schools	143	40.1	24–63	99
Nigeria (3 states)				
Urban group settings	47	29.6	19–48	74
Rural group settings	18	32.9	19–60	71
Poland				
Urban preschools	75	33.0	21–57	100
Rural preschools	49	32.4	22–48	100
Romania				
Urban normal-day kindergartens	24	40.5	27–55	100
Rural normal-day kindergartens	21	39.6	20–61	100
Urban long-day kindergartens	24	38.0	20–58	100
Slovenia				
Kindergartens*	44	NI	NI	NI
Spain (Catalonia)				
Public kindergartens	29	39.3	27–58	100
Private kindergartens	25	32.9	25–59	100
Thailand				
Educational programs	31	36.2	23–49	97
Child care centers	22	31.3	21–48	96
United States (6 sites)				
Head Start centers*	31	40.5	25–55	100
Public school preschools	24	43.1	28–60	100
Other organized programs*	45	35.3	19–60	97

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

country the average age of teachers is similar across different kinds of settings. Belgium and Romania provide clear examples of this point.

GENDER

Table 9.1 also presents the percentage of teachers who are female in all types of settings in 14 of the 15 countries. People currently working in the early childhood field will not be surprised to note that in most countries, regardless of type of setting, nearly all teachers are female. The one exception is Nigeria, where only 74% (but still a majority) of the teachers in urban group settings and 71% of the teachers in rural group settings are female.

YEARS OF FULL-TIME EDUCATION

Table 9.2, p. 264, presents several different types of information about the amount of full-time education completed by teachers in settings in 11 of the 15 countries. The first two columns of findings (following the *N* column) present the mean years completed and the range of years completed by teachers in these 11 countries. On average, teachers in the following types of settings have completed the fewest years of education (between 10.2 years and 11.7 years):

• China	Urban and rural kindergartens (11.5 years and 10.4 years)
• Nigeria	Urban and rural group settings (11.6 years and 11.7 years)
• Thailand	Child care centers (10.2 years)

Across all remaining types of settings in all countries, the average education for teachers ranges from 12.6 years to 16.7 years. Looking at the ranges, however, it is interesting to note that for specific types of settings in several countries (see below), teachers reported having as little as 1 to 4 years of education.

• China	Urban and rural kindergartens (4 years and 4 years)
• Nigeria	Urban and rural group settings (<1 year and 4 years)
• Spain	Public and private kindergartens (3 years and 3 years)
• Thailand	Child care centers (4 years)

At the other extreme, some teachers in at least one type of setting in each of the 11 countries with findings reported having 16 or more years of education. This amount of full-time education generally signifies the attainment of an undergraduate college degree.

The next 3 columns of findings in Table 9.2 divide teachers' educational attainment into three categories: (1) *less than 8 years of education,* (2) *8 to 11 years of education,* and (3) *12 or more years of education.* This method of presenting the findings provides a clearer picture of the distribution of different amounts of education for the teachers in a specific type of setting.

In 7 types of settings across 4 countries (China, Nigeria, Spain, Thailand), there are teachers who reported completing less than 8 years of education. However, more insight comes from examining these percentages more closely: they range from a low of 1% of teachers (in China's urban kindergartens) to a high of 28% (in child care centers in Thailand).

In 10 types of settings across 5 countries (Belgium, Ireland, Poland, Romania, United States), 100% of teachers have completed 12 or more years of education. In fact, as noted by the maximums in the *range of years of full-time education* column, some of the teachers in several of these settings have more than 12 years of education (e.g., see maximum for Belgium's private nursery schools). The last column indicates that in more than two thirds of the types of settings (71%, or 17 of 24 types), 80% or more of the teachers responded that they had completed 12 years or more of education. Only in 1 type of setting, child care centers in Thailand, did less than half of the respondents (36%) note that they had completed at least 12 years of education.

Table 9.2 Educational characteristics of teachers

		Years of Full-Time Education		% of Teachers Having Different Amounts of Education		
Country/Territory	*N*	Mean (yr)	Range (yr)	Less Than 8 Years	8–11 Years	12 Years or More
Belgium (Fr.—Liège Province, Brussels)						
Public nursery schools	28	13.7	11–16	0	3	97
Private nursery schools	27	13.7	12–17	0	0	100
China (PRC, 6 provinces)						
Urban kindergartens	216	11.5	4–16	1	16	83
Rural kindergartens	191	10.4	4–14	6	42	52
Finland						
Child care centers	66	13.7	10–17	0	25	75
Greece (urban)						
Public kindergartens*	49	NI	NI	NI	NI	NI
Child care centers	22	NI	NI	NI	NI	NI
Hong Kong (SAR)						
Kindergartens	26	NI	NI	NI	NI	NI
Child care centers	25	NI	NI	NI	NI	NI
Indonesia (Java)						
Urban kindergartens	39	NI	NI	NI	NI	NI
Rural kindergartens	28	NI	NI	NI	NI	NI
Ireland						
Nondisadvantaged preschools	25	14.2	10–17	0	17	83
Disadvantaged preschools	29	14.0	10–17	0	19	81
Disadvantaged national schools	27	16.3	14–21	0	0	100
Nondisadvantaged national schools	28	16.2	13–19	0	0	100
Italy						
Preprimary schools	143	12.7	8–20	0	29	71
Nigeria (3 states)						
Urban group settings	47	11.6	<1–19	21	23	56
Rural group settings	18	11.7	4–17	20	7	73
Poland						
Urban preschools	75	14.4	11–18	0	1	99
Rural preschools	49	14.4	12–19	0	0	100
Romania						
Urban normal-day kindergartens	24	12.8	12–14	0	0	100
Rural normal-day kindergartens	21	12.6	12–14	0	0	100
Urban long-day kindergartens	24	12.9	12–17	0	0	100
Slovenia						
Kindergartens*	44	NI	NI	NI	NI	NI
Spain (Catalonia)						
Public kindergartens	29	12.8	3–23	14	5	81
Private kindergartens	25	12.8	3–19	12	12	76
Thailand						
Educational programs	31	14.9	10–18	0	3	97
Child care centers	22	10.2	4–16	28	36	36
United States (6 sites)						
Head Start centers*	31	14.8	12–18	0	0	100
Public school preschools	24	16.7	12–19	0	0	100
Other organized programs*	45	15.3	12–20	0	0	100

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Within 7 of the 9 countries with more than 1 type of setting, the percentage of teachers completing 12 or more years of education differs by less than 20% across settings (e.g., Spain—public kindergartens = 81%, private kindergartens = 76%). Only in China and Thailand are there larger differences by type of setting in the percentage of teachers completing 12 or more years of education (e.g., China—

urban kindergartens = 83%, rural kindergartens = 52%).

Summarizing the findings presented in the last 3 columns, we note that in 17 of the 24 types of settings with findings, 80% or more of the teachers reported having 12 years or more of education. Also, in 7 of the 24 types of settings, 1 or more teachers reported having completed less than 8 years of education. Finally, in most countries, the percentages in each column are similar for the different types of settings within a country.

In an urban preschool in Poland, a teacher discusses upcoming activities with a setting director.

TEACHER TRAINING

Table 9.3 on the following page presents the percentage of teachers for each type of setting who have attended teacher-training programs or courses. These findings have to be interpreted with care, because teacher training can vary from a course lasting a few weeks to a 4-year college program in education or early childhood education. Thus, these findings only indicate whether or not teachers have had *some* specialized training related to their work. In the discussion portion of this chapter, the findings reported here will be related to the information presented in the national profiles; this will provide information about the number of teachers who have participated in training relative to the national requirements or guidelines for such training.

As the teacher-training findings in Table 9.3 show, in 8 types of settings across 7 countries, 100% of the teachers reported participating in a teacher-training program.

• Belgium	Public and private nursery schools
• Finland	Child care centers
• Greece	Public kindergartens
• Ireland	Disadvantaged national schools
• Poland	Rural preschools
• Romania	Urban normal-day kindergartens
• United States	Head Start centers

There are 30 types of settings with teacher-training findings in Table 9.3, and in 20 of these, 80% or more of the teachers reported attending training. Eight types of settings reported that between 50% and 79% of teachers attended training programs, while only 2 types of settings have less than a majority of teachers who attended training:

• Ireland	Nondisadvantaged preschools—35%
• Thailand	Child care centers—9%

Table 9.3 Training, certification, and experience of teachers

				Years Working With 3- to 5-year-olds		Years in Present Setting	
Country/Territory	*N*	% Attended Teacher Training	% Certified	Median	Range	Median	Range
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28	100	100	14	3–33	7.5	1–31
Private nursery schools	27	100	100	12	2–27	9	<1–27
China (PRC, 6 provinces)							
Urban kindergartens	216	90	83	6	<1–35	6	1–35
Rural kindergartens	191	63	37	3	<1–15	3	1–28
Finland							
Child care centers	66	100	100	8	<1–25	2.5	<1–20
Greece (urban)							
Public kindergartens*	49	100	100	18	1–31	4	1–18
Child care centers	22	83	96	9	1–27	4	<1–17
Hong Kong (SAR)							
Kindergartens	26	92	64	5.5	1–20	3	1.6–10
Child care centers	25	96	75	5.5	1–20	3.4	1.6–17
Indonesia (Java)							
Urban kindergartens	39	89	100	7.5	2–30	6	1–24
Rural kindergartens	28	88	89	6	<1–31	5	<1–25
Ireland							
Nondisadvantaged preschools	25	35	67	8	2–20	6	1–17
Disadvantaged preschools	29	61	82	7	1–23	6	1–22
Disadvantaged national schools	27	100	96	5	1–22	10	<1–26
Nondisadvantaged national schools	28	96	96	10	1–20	13	1–28
Italy							
Preprimary schools	143	96	99	15	1–30	7	1–20
Nigeria (3 states)							
Urban group settings	47	74	79	3	<1–10	2	<1–10
Rural group settings	18	75	75	3	<1–12	3	<1–12
Poland							
Urban preschools	75	97	92	5	<1–38	5.5	<1–27
Rural preschools	49	100	87	5	1–28	5	<1–28
Romania							
Urban normal-day kindergartens	24	100	100	20	9–28	10	<1–19
Rural normal-day kindergartens	21	85	86	20.5	1–44	14	1–31
Urban long-day kindergartens	24	95	93	15	2–30	4	<1–22
Slovenia							
Kindergartens*	44	NI	NI	NI	NI	NI	NI
Spain (Catalonia)							
Public kindergartens	29	75	89	11	1–34	6	1–32
Private kindergartens	25	50	92	5	3–31	6	1–18
Thailand							
Educational programs	31	84	90	7	<1–27	9	<1–25
Child care centers	22	9	10	4.5	<1–30	5	<1–17
United States (6 sites)							
Head Start centers*	31	100	85	15	2–25	5.5	1–25
Public school preschools	24	78	95	14.5	2–30	4	1–21
Other organized programs*	45	71	63	5	1–23	4	<1–23

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

TEACHER CERTIFICATION

Information about teacher certification is also presented in Table 9.3. Data are included for 30 types of settings across 14 countries. In most countries, more than 80% of teachers in at least 1 type of setting are certified (i.e., in 22 of the 30 types of settings). In 2 countries, specific types of settings have low percentages of certified teachers:

China	Rural kindergartens—37%
Thailand	Child care centers—10%

In general, the percentages of certified teachers are similar across the various types of settings within a given country (i.e., they differ by no more than 20 percentage points). Only China, Ireland, Thailand, and the United States reported greater between-setting differences in percentages of certified teachers.

It is important to note here that since the requirements for teacher certification may vary greatly from country to country, the certification findings presented in Table 9.3 should be interpreted with great caution. That is, in some countries completion of a university-level teacher-training program may be necessary for certification, while in other countries successful performance on an exam, with little or no formal training, may be sufficient. Finally, there are a few types of settings included in the study for which there may be no certification requirements, or for which certification requirements have only recently been established and teachers who are currently working may not meet the new requirements. (The national profiles presented earlier in this volume provide some information about teacher certification requirements in different countries.)

An Indonesian teacher plays a game with her kindergarten class.

YEARS OF EXPERIENCE

To obtain information about teachers' experience, the Provider Survey contained a question asking respondents how long they had worked with 3- to 5-year-old children. Table 9.3 shows that across the 30 types of settings in 14 countries reporting findings, the average (median) response to this item ranges from 3 years (reported by teachers in 3 types of settings) to 20.5 years (reported by teachers in Romanian rural normal-day kindergartens). For 11 of the 30 types of settings (37%) the median amount of experience is 10 years or more, while for 15 types of settings the median ranges from 5 to 9 years.

The range column under *years working with 3- to 5-year-olds* reveals that in many countries, teachers in at least 1 type of setting reported working with this age group for as long as 30 years. Nigeria, by contrast, has no teachers with more than 12 years of experience. While settings in many countries understandably have some teachers in some types of settings with a year or less of preprimary experience, it is worth noting that in 9 types of settings no respondents were first-year teachers. The minimum number of years' experience across these 7 types of settings ranges from 2 to 9 years.

YEARS EMPLOYED IN PRESENT SETTING

Another Provider Survey question asked how long teachers had been employed in their present setting. The last two columns in Table 9.3 present this information (giving the median and range). Teachers' average time in the current setting ranges from 2 years in Nigeria's urban group settings to 14 years in Romania's rural normal-day kindergartens. As in the previous set of columns in the table (i.e., *years of experience),* 15 of the 30 medians (50%) for years working in present setting range from 5 to 9 years. However, most of the remaining medians are lower, with those for 11 of 30 types of settings (37%) ranging from 2 to 4 years.

The ranges reveal that in nearly every country there are some teachers in at least 1 type of setting who have worked in their current setting for at least 20 years. In the 4 types of settings listed below, there are some teachers who have been in their present setting more than 30 years.

• Belgium	Public nursery schools
• China	Urban kindergartens
• Romania	Rural normal-day kindergartens
• Spain	Public kindergartens

DISCUSSION

Early childhood professionals and policymakers in many countries consider teacher characteristics to be some of the strongest indicators of the quality of an early childhood setting. For example, in the United States teacher training and experience are often included in a small set of structural characteristics used to designate a setting as being of high quality. This use of teacher characteristics to identify high-quality settings is a result of research studies conducted in the United States and reported in the literature review in Chapter 2.

Thus, it is important for any comprehensive study of the experiences of preschool-aged children in group settings to include data on teacher characteristics. In the present monograph, we present descriptive data for several characteristics of teachers in the 31 types of group settings across the 15 participating countries. In Monograph #3 of this series, we will explore the relationship between teacher characteristics and process characteristics in the classroom, obtained by direct observation (e.g., how teachers ask children to spend their time, the percentage of time children are not engaged in an activity). The final monograph of this study (Monograph #4) presents findings on the developmental status of the children and examines the relative contributions of structural and process characteristics on children's developmental status.

In the remainder of this chapter we will compare the findings just presented with information contained in the national profiles; we will also discuss the relationships between some selected sets of findings.

AGE

In the set of 14 national profiles, 4 countries specify a minimum age requirement for lead teachers or caregivers:

• Indonesia	18 years
• Italy	18 years
• Nigeria	20 years
• Spain	21 years

The findings reported in Table 9.1 indicate compliance with this minimum age requirement in 3 of these countries (Indonesia, Italy, and Spain), where the minimum ages reported are above the minimum required age. The exception is Nigeria, where although the required minimum age is 20 years of age, a few teachers in both urban and rural group settings reported that they were 19 years of age.

GENDER

Looking at Table 9.1, one might think there is a requirement that lead teachers or caregivers be female. However, no national profile notes a gender requirement. The only profile that suggests even a gender preference is that of Nigeria, in which the following sentence appears: *In nursery schools teachers and caregivers are female, since females are judged to be the more appropriate caregivers for this age level* (Chapter 3, p. 89). Considering this, it is surprising to note that in Table 9.1 Nigeria reported having the lowest percentage of female lead teachers in both urban and rural group settings (74% and 71%, respectively).

YEARS OF FULL-TIME EDUCATION

These findings provide information not only on teachers' general education history but also on their participation in teacher-training programs. This is because the amount of teacher training is included in the amount of full-time education. Two examples of how data on years of full-time education provide information about teacher training are presented here.

Italy: As Table 9.2 shows, 29% of the lead teachers and caregivers in Italy have completed 8 to 11 years of education; the remaining 71% have completed 12 or more years. Italy's national profile notes that 3 or 4 years of training are required for preprimary teachers but that this training is generally provided at the secondary school level. Thus, it is not surprising to see in Table 9.3 that although 96% of Italian teachers reported having attended teacher training, some have completed only 8 to 11 years of education.

Poland: Poland's national profile indicates that most preschool teachers have 2 years of college with a specialization in preprimary education. Thus, as might be expected, nearly every teacher in both types of settings in Poland reported having 12 or more years of education. In fact, examination of the detailed data indicates that nearly every teacher has completed 14 or more years of education, a finding consistent with the teacher-training information provided in the national profile.

TEACHER TRAINING

When the Provider Survey questionnaire was being developed by the committee of national research coordinators, some coordinators wanted to collect a great deal of information about teacher training. However, the majority considered that proposal to be unfeasible in a large-scale, multifaceted early childhood research study such as the present one. They were concerned that, to be truly informative, the amount of data that would be needed about the content and structure (i.e., field-practice component) of a teacher-training program would be so extensive that it would detract from the other major data collection efforts in the study. Thus, the decision was made to include a small number of basic questions regarding participation in teacher-training programs (see questions F6 through F8 in Appendix A). As noted earlier, this monograph presents selected findings only; the findings for the one teacher-training item selected for inclusion are presented in the second column of Table 9.3.

A teacher in an Irish disadvantaged national school engages students in a language activity.

From the national profiles it is clear that most countries consider teacher training to be important and either require or strongly recommend that this training occur prior to employment as a lead teacher or caregiver. This emphasis on teacher training is reflected in the findings contained in Table 9.3. In 20 of the 30 different types of settings, 80% or more of the teachers reported that they have attended a training program. From the information presented in the national profiles, one might expect to find the lowest percentage reporting such participation to be in child care centers in Thailand, where teacher training is neither required nor, seemingly, emphasized. It is not surprising therefore to note that only 9% of teachers in child care centers in Thailand reported attending such training.

As noted earlier, it is important to remember that the length of such a program might vary from a few weeks to several years. Only an in-depth study of teacher-training programs in different countries will provide clear information about the length, content, and structure of these programs.

TEACHER CERTIFICATION

In addition to placing a high priority on teacher training, most countries also have in place a certification system to insure that teachers meet certain specified minimum criteria. However, there are a few types of settings for which there is no certification system (e.g., private kindergartens in Spain and child care centers in Thailand).

The findings in Table 9.3 indicate that there are only 2 types of settings in which less that 50% of teachers are certified.

• China	Rural kindergartens—37%
• Thailand	Child care centers—10%

Thailand's national profile provides no information about a certification system for child care centers, thus the low percentage of certified teachers is not surprising. While China's national profile does indicate the existence of a certification system, it also notes that many lead teachers in rural kindergartens are not presently certified, a statement consistent with the findings reported in Table 9.3.

YEARS OF EXPERIENCE

The ranges of years of experience presented in Table 9.3 provide some interesting information. For example, the finding that in most types of settings there are teachers with 20 or more years of experience indicates that employment in this field is long-term, at least for some adults.

The other interesting finding is that a few types of settings have no first-year teachers. An explanation for such a situation in Belgium was provided by that country's national research coordinator: "When prospective teachers leave the teacher-training schools, it is usually difficult for them to find a job. They often work for short periods of time as substitutes during other teachers' maternity or illness leave. This situation may last for several years before they have their 'own' classroom (i.e., become a lead teacher)" (personal communication, 5 August 1999).

YEARS EMPLOYED IN PRESENT SETTING

The final set of findings in Table 9.3 provide information about the length of time that teachers/caregivers have worked in their present setting. When these findings are viewed in relation to the findings for years of experience, the following three types of scenarios emerge.

(1) *The medians for the two types of findings are equal or nearly so*—as is the case in both types of settings in China and both types of settings in Poland. The similarity between these two sets of medians might suggest that, in these countries, many teachers spend most of their working career in a single setting.

(2) *The median for years of experience is much larger than that for years employed in the present setting.* Examples of this situation are seen in both types of settings in Greece and the 3 types of settings in Romania. These findings suggest that many teachers in these countries work in 2 or more different settings during their career.

(3) *The median for years of experience is lower than the median for years employed in the present setting*—as in both types of national schools in Ireland and in educational programs in Thailand. These findings suggest that some teachers may have been employed in their present setting either in a different role (e.g., teacher aide) or with a different age group (e.g., primary students).

SUMMARY STATEMENTS

- **The average age for lead teachers/caregivers among the participating countries is between 26 and 43 years of age.**
- **In all participating countries except Nigeria, 90% or more of teachers are female.**
- **In 19 types of settings across 9 countries, teachers have, on average, 12 years or more of education. The exceptions include teachers in the 2 types of settings in China, the 2 types of settings in Nigeria, and child care centers in Thailand.**
- **In 20 of the 30 types of settings with findings, 80% or more of teachers/caregivers reported attending teacher-training programs, although little is known about the content or length of these programs.**
- **In 22 of 30 types of settings with findings, 80% or more of teachers are certified, although little is known about the specific criteria used for certification.**
- **In half of the types of settings included in the study, on average, teachers have worked with 3- to 5-year-old children for 5 to 9 years. In another third of the types of settings, the average length of time is 10 years or longer.**
- **In half of the types of settings included in the study, teachers have worked in their present setting an average of 5 to 9 years. In another third of the types of settings, the average length of time is 4 years or less.**

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STRUCTURAL CHARACTERISTICS OF FAMILY DAY CARE HOMES IN FINLAND AND THE UNITED STATES

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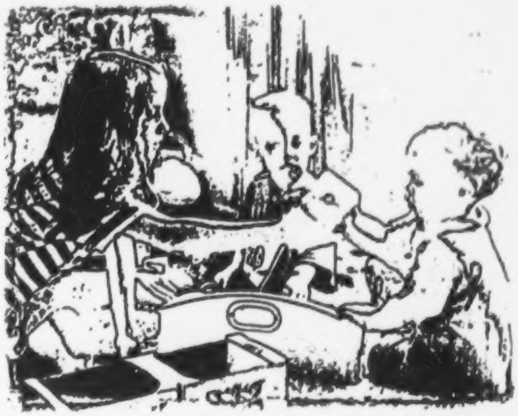


United States

In addition to center-based education and care settings, family day care was found to be of considerable interest in 2 of the 15 countries involved in the IEA Preprimary Project (IEA/PPP). As noted earlier, in some countries involved in the study (e.g., Belgium and Spain), this form of care does not exist for children at age 4 due to the large number of children attending center-based programs. However, in Phase 1 of IEA/PPP, 17% of U.S. families and 35% of Finnish families reported using home care arrangements for their 4-year-old children (Olmsted & Weikart, 1994). In the United States, this figure is supported by other research showing that 28% of employed mothers of 3- and 4-year-olds use family child care or relative care as the primary care arrangement (Hofferth, Brayfield, Deich, & Holcomb, 1991). More recent data from the 1995 National Household Education Survey show that approximately 13% of 3- and 4-year-old children are cared for by nonrelatives in the provider's home (West, Wright, & Hausken, 1995). This figure does not include children cared for by relatives either in their own or their relatives' home.

This chapter first presents a brief review of background information related to family day care settings and providers. National policy information for Finland and the United States is also included to assist readers in understanding the national context in which family day care homes function in the two countries. Following this is an explanation of the methodology used in the present study, including sampling and instrumentation. Finally, the findings for structural characteristics of Finnish and U.S. family day care settings are presented in five sections: management policies and staffing, patterns of operation and enrollment, the physical setting, additional services and home-setting contact, and characteristics of family day care providers.

BACKGROUND INFORMATION

For generations families in many cultures have turned to relatives, friends, and neighbors for child care. Over time, with changing family structures, more complex parent work schedules, and a heightened focus on the importance of preschool care and education, family day care has changed. It has now become a diverse set of arrangements between families and caregivers, ranging from informal agreements with relatives or friends to highly structured, formal operations.

Almost all available studies on family day care have taken place in North America. Although several aspects of family day care have been studied, the body of literature in some respects is sparse, certainly in comparison to the amount of research on group-care settings. Despite the widespread and long-time use of family day care, it was not until 1981 that the first major comprehensive study was published—the National Day Care Home Study (NDCHS; Divine-Hawkins). Since that time several large-scale studies have looked at various components of family day care.

The NDCHS provided baseline information on caregiver characteristics. The study found that most providers (76%) either had a high-school diploma or had not finished high school, and 19% had an eighth-grade education or less. Training in child care varied with the regulatory status of the home, with three fourths of providers in sponsored homes reporting some type of training and providers in most unregulated homes reporting little training.

Studies consistently show that caregivers in homes are more poorly trained than those in centers (Kontos, 1992), although it is difficult to measure training in terms of type, content, and hours

A provider in a Finnish family day care plays a card game with children.

attained. Home caregivers are more likely to be trained through high-school courses or informal methods such as workshops and conferences than through formal course work at the postsecondary level. Walker (1992) states:

> The market does not value education or experience. . . . The absence of an educational return is doubly pernicious: well-educated individuals have no monetary incentive to enter the profession and poorly-educated providers have no incentive to upgrade their skills. (p. 65)

In another study regarding the impact of child care training, Kontos, Howes, and Galinsky (1996) found that training can have a modest positive effect on several aspects of caregiving quality.

In a recent review of research Kontos (1992) noted that it is difficult to identify how much experience the typical family day care provider has. According to Kontos, it is probably safe to say that a significant minority of caregivers are relatively inexperienced in caring for children (i.e., they have 1 year or less of experience), but that the majority of caregivers have more than 3 years of experience. However, most of this data is based on regulated caregivers. Other studies (Divine-Hawkins, 1981; Pence & Goelman, 1987) found that unregulated caregivers were, on average, less experienced than regulated caregivers.

Families choose home day care for a variety of reasons. For instance, day care homes often have more flexible schedules than some center-based settings. One study found that care provided by relatives outside the child's home or in family day care homes was more likely to be available before 7:00 a.m. and after 6:00 p.m. (Sonenstein & Wolf, 1991). Families may choose to rely on kith (unrelated individuals who serve as surrogate kin) and kin (family) because they want their children cared for by someone familiar to them and in an environment similar to their own home. Another factor generally assumed to contribute to the appeal of home-based care is that family day care homes are often located near the child's own home, facilitating drop-off and pickup times. However, a Canadian study found that parents using family day care reported living farther away from their caregivers than did parents using center-based care (Kivikink & Schell, 1987, as cited in Kontos, 1992). Family day care is generally considered less expensive than center-based care; however, cost estimates from various studies indicate that family day care and center-based care are actually similar in price (Hofferth, 1989; Kisker, Hofferth, Phillips, & Farquhar, 1991; Sonenstein & Wolf, 1991).

Family day care settings often have smaller groups of children and fewer children per adult than centers do, another feature that is attractive to parents (Kontos, Hsu, & Dunn, 1994). Interestingly, researchers have documented that children in family day care are more likely to receive sensitive, responsive caregiving when in groups of three to six rather than one to two (Kontos, Howes, Shinn, & Galinsky, 1995). This contrasts with findings from center-based care, which consistently associate *smaller* group sizes with higher quality care. Informally, some home care providers report that with only one or two children in care they feel as though they are at home, but when they have three or more children they see themselves as "at work" and operate their setting more like a center.

Family day care settings do have some disadvantages compared with center-based settings. Studies have consistently shown, for example, that day care homes are typically smaller and more poorly equipped than centers (Kontos, 1992). This need not necessarily negatively affect children, however, since simply providing more toys and materials does not appear to make a difference in children's development (Clarke-Stewart & Gruber, 1984). Home settings are also less likely to provide children with a space specifically designed and designated for child care. When these settings *are* arranged with children's needs in mind,—e.g., "when the setting and the schedule are structured so that there are areas and times set aside for play . . . , when there are fewer adult-oriented decorative items" (Clarke-Stewart & Gruber, p. 55)—both child and caregiver behaviors are positively affected (Howes, 1983).

NATIONAL CHILD CARE POLICY IN FINLAND AND THE UNITED STATES

Child care policies in Finland are formulated at the national level and are effective nationwide (Lindgren, 1978). Finnish family policy is considered to be an integral part of the overall social policy and includes child care services, maternity allowances and benefits, child allowances, and child guidance clinics. Family policy contributes to the overarching goal of social policy "to increase equality by improving the standard of living of its citizens" (Lindgren, 1978, p. 294). The most important, basic intents of family policy are the safeguarding of a basic standard of living for children and provision for equal opportunities for development for all citizens.

In 1973 legislation made day care provision a public social service available to anyone in need of it. The law states that all children under age 7 are eligible for day care, and they must be grouped according to age. The law also limits the number of children in a family day care home to four, which includes any children of the person in charge. Day care in homes may be either *guided* or *supervised*. Guided family day care is run by the municipality, and fees are the same as those charged in day care centers. Supervised day care is run by private individuals and fees are determined by supply and demand (Lindgren, 1978).

In contrast to Finnish policies, family day care standards in the United States differ greatly from state to state. Each state is responsible for establishing its own laws, systems of inspection, and regulations for family day care homes. Licensing may address such issues as health and safety, types of providers required to be licensed or registered, group size, number of infants permissible, adult-child ratios, provider training, and other aspects of caring for children (Hofferth et al., 1991). Figure 10.1 on the facing page illustrates several differences in licensing standards in the four states containing data collection sites.

METHODOLOGY

SAMPLE OF FAMILY DAY CARE HOMES

As noted in Chapter 4, both Finland and the United States included family day care settings as part of their sampling plan, based on results from the Phase 1 research about families' use of this type of care. As noted in Table 4.2, the achieved sample consisted of 89 family day care homes in Finland and 32 in the United States.

Finland

In Finland, family day care homes were randomly selected from lists provided by the day care registers maintained in each county. Children were selected from those in the target age-range (4 years 3 months to 4 years 9 months). Generally only one child was available in the appropriate age-range from each home. The final sample included 89 family day care homes with 89 target children. Only 5% of the caregivers in the study were related to the child(ren) in their care.

Regulatory policy	California	Michigan	Mississippi	New Jersey
Licensing/registration requirements				
Family child care home (FCH)	Licensing required	Registration required	Voluntary registration of family child care homes, 1–5 children	Voluntary registration
Group family child care home[a] (GFCH)	Licensing required	Licensing required	Licensing required for group family day care homes, 6–16 children	Child care center licensing required for programs serving 6 or more children
Maximum group size[b]				
Family child care home	6	6	5	5
Group family child care home	12	12	15	NA
Maximum adult-child ratio				
Family child care home	1:6	1:6	NI	1:5
Group family child care home	2:12	1:6	NI	NA
Space requirements	None	35 sq ft (3.25 m^2) inside, 400 sq ft (37.2 m^2) outside	35 sq ft (3.25 m^2) inside, 70 sq ft (6.5 m^2) fenced outside area	NI
Initial training requirements	Orientation required for all applicants. Specified personnel required to attend 15 hours of training in preventive health practices.	Orientation, first-aid training (including CPR) required for all providers. Training also required for GFCH providers in child development and prevention of child abuse.	None	6 hours of preservice training
Ongoing/inservice training requirements	None	None	6 hours per year	2 hours per year
Inspections	Once every 3 years	FCH inspected within 90 days of certification; 10% random visits. Licensing renewed every 3 years based on self-certification. GFCH unscheduled visits annually.	Inspected before license is issued and then at least twice a year.	Inspected prior to certification and then once every 2 years.

Source: The Children's Foundation, 1996 Family Child Care Licensing Study

Note. [a] Group (or large) family day care homes as defined by each state. [b] Many states differentiate group size for infant care; this may or may not include provider's own children. NA indicates data not applicable. NI indicates no information available.

Figure 10.1 Licensing regulations for family child care homes in four states in the United States

United States

Family day care settings at each of the six U.S. sites were identified through listing and screening procedures. Researchers from the Institute for Social Research at the University of Michigan selected census tracts from each site based on U.S. census data. Within each site they drew a representative sample of tracts; together the six sites encompass all major cultural/ethnic and socioeconomic groups in the United States. Specially trained site personnel made a door-to-door canvass of the selected census tracts in each site and compiled a list of all available family day care settings. Although the majority of homes included in the sample were located using listing and screening, this procedure alone did not yield sufficient numbers of family day care homes. To increase the sample to the desired size, researchers incorporated snowball sampling, a technique that builds up a list or sample of a special population by using an initial set of its members as informants (Kish, 1965). For example, participating providers were asked if they knew of other family day care homes in the neighborhood or area. Additional homes were randomly selected from lists generated by resource and referral agencies at each site.

Once a family day care home was identified, families of children in the target age-range (4 years 0 months to 5 years 0 months) were invited to participate in the study. Generally, there were only one or two children in each day care home within the age-range. If more than four children were available in a particular setting, researchers randomly selected up to four.

In the United States, we initially defined a family day care home as a residential home where children other than those belonging to the resident of the home were cared for by a nonrelated adult. The definition was intentionally left open enough to include both registered/licensed and unregistered/unlicensed settings serving up to 12 children each. We also allowed for settings that operated less than full time but which the target children attended at least 10 hours a week. As data collection began, the definition of family day care was expanded to include related adults as providers, because many of the identified homes were run by adults related to children in the appropriate age-range for the study.

Data collection for Phase 2 of the IEA/PPP took place in four states: California, Michigan, Mississippi, and New Jersey. The final U.S. sample of family day care settings included 32 homes with 77 target children. Thirty-eight percent of the caregivers included in the sample were related to the target child(ren) in their setting; most were mothers of the target children.

SMALL-GROUP PROVIDER SURVEY

The Provider Survey questionnaire for small groups was used to collect data from primary caregivers in family day care homes. The questionnaire was adapted from the Provider Survey for group settings/organized facilities (described in Chapter 4) to more accurately reflect the characteristics of home child care. Some sections of the group-setting survey were eliminated altogether (e.g., sponsorship of the program, admission policies, and curriculum), while others were revised. A complete Provider Survey questionnaire for small groups is located in Appendix B.

MANAGEMENT POLICIES AND STAFFING

LICENSING/CERTIFICATION

Table 10.1 on the facing page reveals that in both Finland and the United States nearly all (97%) family day care homes in the study are licensed to care for preschool children. Most providers in the

United States indicated that licensing is administered through a social welfare or social service agency. In Finland, as noted in the national profile, family day care homes are licensed by municipal social welfare boards. Nearly all settings in the United States (93%) undergo a review process, which takes place on average every 3 years (median = 36 months); some settings, however, are reviewed as often as twice a year or as little as once every 5 years (range = 6–60 months). Licensing is reviewed in about two thirds of the settings in Finland, but most providers did not indicate how often this review takes place.

Table 10.1 Licensing/certification and licensing review in family day care homes

							How Often Reviewed (in months)	
Country/Territory	*N*	*N* Reporting Data	% Licensed/ Certified	*N* Licensed/ Certified	% Licensing Reviewed	*N* Licensing Reviewed	Median %	% Range
Finland	84	76	97	74	62	46	NI	NI
United States	32	30	97	29	93	27	36	6–60

Note. N is the number of settings sampled in each country. NI indicates no information available.

Responses to questions about licensing criteria (see Table 10.2, below) show that nearly all settings in both countries are licensed according to availability of the physical space, health regulations, and caregiver characteristics. In addition, accordance with both safety and fire regulations is almost always used as a criterion in the United States; equipment (both the nature and amount) and staffing are used as criteria in about half of the settings. About three fourths of the settings in Finland are licensed based on food programs and accordance with safety regulations, and about half on the availability of equipment.

Table 10.2 Percentage of family day care homes having various licensing criteria

					Licensing Criteria							
Country/Territory	*N*	*N* Reporting Data	% Licensed/ Certified	*N* Licensed/ Certified	Space Facilities	Health Regulations	Caregiver Characteristics	Safety Regulations	Fire Regulations	Equipment	Food Program	Staffing
Finland	84	76	97	74	89	93	96	74	59	55	76	14
United States	32	30	97	29	100	96	82	100	96	50	25	50

Note. N is the number of settings sampled in each country.

SUPERVISION BY LICENSING BODY

In Finland 73% of licensed family day care homes are supervised by the licensing body; in the United States just over half (59%) of the licensed homes have any type of supervision (see Table 10.3 on the following page). Supervision may occur as often as once a month in Finland, whereas in most U.S. settings that have regular supervision it takes place every 2 years (median = 24 months).

Table 10.3 Percentage of family day care homes supervised and frequency of supervision

					How Often Supervised (in months)		
Country/Territory	*N*	*N* Licensed/ Certified	% Supervised	New *N* Number Supervised	Mean	Median	Range
Finland	84	74	73	54	2.6*	1*	1–12*
United States	32	29	59	17	21.4*	24*	4–36*

Note. *N* is the number of settings sampled in each country. The symbol * indicates a type of setting with less than 80% of the data available.

Table 10.4, below, presents licensing requirements for the number and age of children served in family day care settings. The median number of children homes are licensed to serve in the United States is 6, although some homes are licensed to serve as many as 12 children. Finnish day care homes are generally licensed for fewer children; the median number of children is 5, with a range of 3 to 9. In the United States, family day care homes are generally licensed to serve a wide age-range of children, with the majority (66.7%) of settings in this sample licensed to serve children from less than 1 year to 8–12 years of age. In Finland the age-range of children served in family day care setting is narrower, with the majority (63.3%) of children from 1 year to between 6 and 7 years.

Table 10.4 Number and age-range of children family day care homes are licensed to serve

			Number of Children			% of Family Day Care Homes Licensed to Serve Various Age-Ranges					
Country/Territory	*N*	*N* Licensed/ Certified	Mean	Median	Range	<1 Year to 4–5 Years	<1 Year to 6–7 Years	<1 Year to 8–12 Years	2 Years to 4–5 Years	2 Years to 6–8 Years	3 Years to 5–8 Years
Finland	84	74	5.1	5	3–9	5.9	63.3	10.2	1.5	11.7	7.4
United States	32	29	8.2	6	5–12	18.5	3.7	66.7	3.7	3.7	3.7

Note. *N* is the number of settings sampled in each country. <1 indicates children younger than 1 year of age can be served.

MAINTENANCE OF RECORDS

Research suggests that records maintenance (e.g., of parents' telephone numbers, children's immunization records) is a good indicator of the quality of caregiving (Kontos et al., 1995). All settings sampled in both countries maintain at least 1 type of record on children; as Table 10.5 on the facing page shows, a majority of settings in both countries keep 2 to 3 types of records.

The most common records kept in Finland are attendance records (96%). Background information records, including such things as child's birth date, family's address, and parents' phone number, are kept by 74% of the settings. A majority of settings (64%) also keep medical records on childern.

In the United States, medical records and background information are kept by a large percentage of family day care homes (90% and 87%, respectively). Attendance records are also routinely kept in 70% of the settings. Forty-three percent of U.S. providers also mentioned keeping other forms of records, including daily records of meals and snacks served, financial payment records, daily journals of events and activities, and injury reports, as needed.

Table10.5 Percentage of family day care homes maintaining various kinds of records

		% Maintaining and Updating Records				
Country/Territory	*N*	Attendance Records	Background Information	Medical Records	Evaluations/ Tests	Other
Finland	84	96	74	64	13	15
United States	32	70	87	90	23	43

Note. *N* is the number of settings sampled in each country.

FEES

As shown in Table 10.6, below, all home caregivers reporting information in Finland charge a fee, while 87% of the caregivers in the United States charge a fee. Upon further examination of the U.S. data, it was determined that caregivers who reported charging no fees were related to the target child in care. A small percentage of parents in both countries, 15% in Finland and 31% in the United States, receive financial assistance to cover fees for family day care. In Finland this assistance is provided by community agencies; in the United States the welfare department or private employers are the major source of support.

Table 10.6 Percentage of family day care homes receiving payment for child care and percentage of parental financial assistance

Country/Territory	*N*	*N* Reporting Data	% Receiving Payment	New *N* Receiving Payment[a]	% Parents Receiving Financial Assistance
Finland	84	80	100	80	15
United States	32	30	87	26	31

Note. *N* is the number of settings sampled in each country. [a]New *N* excludes mothers caring for their own child.

PATTERNS OF OPERATION, ENROLLMENT, GROUP SIZE, AND STAFFING RATIO

PATTERNS OF OPERATION

The 2 countries differ slightly in the number of weeks per year services are available (see Table 10.7 on the following page). Family day care services are available for a median of 46 weeks in Finland, with some settings offering services for as few as 36 weeks and others open year-round (52 weeks). In the United States, services are generally offered for about 4 weeks more per year (median = 50), with a range of 46 to 52 weeks per year.

Although not shown in Table 10.7, family day care providers in both countries gave information about the days of the week they are open; generally settings are open 5 days a week, Monday though Friday. A small number of settings (1% in Finland and 7% in the United States) are open on Saturday.

Table 10.7 Amount of time family day care services are available and children are in care[a]

Country/Territory	*N*	Number of Weeks per Year Services Are Available		Number of Hours per Day Children Are in Care	
		Median	Range	Median	Range
Finland	84	46	36–52	8.5	4.5–10.5
United States	32	50	46–52	9.5	3–13

Note. N is the number of settings sampled in each country. [a]Monday through Friday

Day care homes open on Saturday in Finland generally close 1 other day of the week (Monday through Friday). In the United States a small number (10%) of settings operate only 3–4 days a week. U.S. settings that operate 6 days a week may do so to accommodate parents' work schedules. A majority of family day care homes in both countries open at 7:30 a.m., although some in the United States open as early as 5:30 a.m. and in Finland at 6 a.m.

Table 10.7 also presents information about the amount of time children spend in family day care homes. In the United States, the median number of hours per day children spend in care is 9.5; in Finland children attend for slightly fewer hours (median = 8.5). However, in both countries there are large variations in the amount of time children spend in care, from part-day (4.5 hours in Finland and 3 hours in the United States) to 10.5 hours in Finland and (for at least 1 child) 13 hours in the United States.

ENROLLMENT, GROUP SIZE, AND STAFFING RATIO

Although enrollment information does not appear in table form in this book, family day care providers in both Finland and the United States supplied this information. Figures for the overall sample of homes show that nearly equal numbers of boys and girls are enrolled in both countries. Most homes also reported caring for a mixture of boys and girls. In the United States, family day care homes enroll children from less than a year old to as old as 12 years, although in most settings the oldest children are 5 or 6 years old. In Finland enrollment includes children from 1 year through age 7 or 8. Most settings reported a beginning age of 1 or 2 years and upper ages of 5, 6, or 7 years. The large age-range in the United States may be explained in part by the trends toward using this type of care for infants and as after-school care for school-aged children (Hofferth et al., 1991).

As Table 10.8 on the facing page illustrates, median staff-child ratios in family day care homes are the same in the 2 countries, 1 adult for 4 children in the settings sampled. However, the ranges differ slightly—1:1 to 1:7 in Finland and 1:2 to 1:12 in the United States. The United States has slightly larger group sizes in day care homes (median = 5; 4 in Finland). About half of homes in the U.S. sample regularly have 2 adults present, whereas in Finland having 2 adults in a setting is rare. When this does occur it is likely to be the result of 2 family day care settings joining each other for short periods of the day (e.g., going to the park or playground together for 45 minutes).

According to the licensing standards presented earlier in this chapter and the national profile information in Chapter 3, the median staff-child ratio for both countries falls within the acceptable limits. However, the upper ranges of group sizes suggest that in some settings in both countries the number of children exceeds licensing standards.

Table 10.8 Group size and staff-child ratio in family day care homes

		Group Size		Staff-Child Ratio	
Country/Territory	*N*	Median	Range	Median	Range
Finland	84	4	1–12	1:4	1:1 to 1:7
United States	32	5	2–13	1:4	1:2 to 1:12

Note. N is the number of settings sampled in each country. The data presented here are derived from the observational data sets collected in the same settings in which the Small-Group Provider Survey was administered.

PHYSICAL CHARACTERISTICS OF FAMILY DAY CARE SETTINGS

ROOM USAGE, SPACE USAGE, AND SPACE PER CHILD

The mean size of homes used for family day care in the United States (shown in Table 10.9, below) is 143 m^2, with homes ranging in size from 84 m^2 to 204 m^2. Typically, 4 rooms (excluding the bathrooms and kitchen) are available for children's activities and 3 are used regularly, although at least 1 home reported having as many as 8 rooms available and used (see maximum ranges). Looking at the mean size of homes in Table 10.9 (143 m^2) along with the median amount of space available (93 m^2) and used (46 m^2) in Table 10.10 (following page), we see that some of the household space is reserved for family use only and about half of the remaining space is used regularly by the children in care.

In Finland the mean size of family day care homes is 109 m^2 (see Table 10.9); they range from 56 m^2 to 255 m^2. Most of these homes reported that 3 rooms are available and used regularly for children's care. In general, the entire space available (about half of the overall household space) is used daily (median space available = 55 m^2; space used = 50 m^2).

Table 10.9 Size of family day care homes, rooms available and used

		Approximate Size of Homes (m^2)		Rooms Available		Rooms Used	
Country/Territory	*N*	Mean	Range	Mean	Range	Mean	Range
Finland	84	109	56–255	3	1–7	3	1–5
United States	32	143	84–204	4	2–8	3	2–8

Note. N is the number of settings sampled in each country.

Another important space issue to consider is the amount of space available for children to be involved in various activities. Using the figures for both space available and space used, calculations were made to determine space density, or space per child. To calculate space density, the median space available was divided by the median number of children in the home (see Table 10.8, *group size*). In both countries there is a fairly large amount of space available per child (14 m^2 in Finland and 19 m^2 in the United States). Similarly, there is a fair amount of space *used* per child, although the median is somewhat higher in Finland than in the United States (13 m^2 and 9 m^2, respectively). This density exceeds specifications or recommendations outlined in the national profiles for both

Table 10.10 Space characteristics of family day care homes

		Space Available (m²)			Space Used (m²)			Space per Child (m²)ª	
Country/Territory	*N*	Mean	Median	Range	Mean	Median	Range	Median Available	Median Used
Finland	84	59	55	15–150	52	50	10–100	14	13
United States	32	97	93	12–186	52	46	7–149	19	9

Note. N is the number of settings sampled in each country. ªEstimated space per child was determined by dividing the median space available/used by the median group size.

Finland and the United States. The Finnish national profile states that there must be at least 6 m² of interior space per child for children 3 to 6 years. In the United States, those states that mention space requirements for family day care homes (e.g., Michigan and Mississippi in Figure 10.1) recommend that family day care homes follow the same guidelines as center-based care, 35 sq. feet (3.25 m²) per child.

Providers were also asked if the rooms and space in their homes were structured for children, for instance, by the provision of child-sized furniture, low shelving, age-appropriate books and toys, and arts and crafts supplies. In Finland, about two thirds of the settings reported that the space used is structured for children in care; in the United States, 94% of homes structure the day care area for use by children.

This child enjoys playing on a tire swing in the backyard of the U.S. family day care he attends.

CHARACTERISTICS OF OUTDOOR PLAY AREAS

Nearly all family day care homes in the study have outdoor play areas available (Finland – 99%, United States – 100%). See Table 10.11 on the facing page. In the United States, the outdoor play areas are typically located on the property, whereas in Finland only 59% of outdoor play areas are on the property of the day care home. A majority of the homes without play areas on the property reported having such areas within walking distance. The majority of family day care homes in both countries (78% in the United States and 63% in Finland) described the outdoor play areas as a lawn or yard. The remaining homes described the outdoor play areas as a combination of a lawn/yard and park/playground.

Children attending a family day care home in the United States create pictures using different colored paints and bubble wrap.

MATERIALS AND EQUIPMENT

The Provider Survey questionnaire for small groups contained questions about materials and equipment available for children's use. Providers were asked to identify the number of items they provide in several different categories. For example, the survey listed 31 different kinds of gross-motor materials/equipment (e.g., jungle gyms, tricycles, jump ropes) and 15 kinds of fine-motor materials/equipment (e.g., puzzles, beads, pegboards). (The total number of items for each category of equipment/materials included in the survey is located in parentheses next to the category heading in Table 10.12 at the bottom of this page.) All homes in both countries reported having at least 1 type of item in each category, except for science and nature materials (Finland = 96%; United States = 94%) and music-related materials in Finnish homes (99%). The slightly lower amounts of science/nature materials in homes in both countries is somewhat surprising given the fact that many of the items in this category are "found" items (e.g., rocks, feathers, plants, shells) that are generally easily obtained.

Table 10.11 Characteristics of outdoor play areas in family day care settings

						% of Each Type of Outdoor Play Area (≥ 10%)		Approximate Size of Outdoor Play Area (m²)		
Country/Territory	*N*	*N* Reporting Data	% Outdoor Play Area Available	New *N* Outdoor Play Area Available	% Outdoor Play Area On Property	Lawn/ Yard	Lawn/Yard & Park/ Playground	Mean	Median	Range
Finland	84	84	99	83	59	63	26	1,239	800	30–6,000
United States	32	31	100	31	100	78	13	186*	139*	9–511*

Note. N is the number of settings sampled in each country. The symbol * indicates a setting with less than 80% of data available.

Altogether the Small-Group Provider Survey listed 113 different kinds of materials and equipment that might be present in family day care homes. When the medians for each category are totaled, the findings suggest that day care homes in both countries are fairly well equipped and offer some variety: Finnish homes average 64 different kinds of equipment and materials, and U.S. homes average 76. These numbers are comparable to those in group settings in each country (presented in Chapter 7), although Finnish homes have, on average, fewer materials than Finnish centers (Finland's centers = 80 items; U.S. centers = 73–78 items).

Table 10.12 Equipment and materials in family day care homes

	Finland (*N* = 84)			United States (*N* = 32)		
Type of Equipment	% With One or More Items	Median	Range	% With One or More Items	Median	Range
Gross-motor materials (31)[a]	100	13	4–31	100	18	2–30
Fine-motor materials (15)	100	10	3–15	100	12	7–15
Dramatic play materials (14)	100	10	1–14	100	10	2–14
Art/craft materials (16)	100	9	3–16	100	12	4–16
Music-related materials (5)	99	3	0–5	100	4	1–5
Science/nature materials (12)	96	6	0–12	94	6	0–12
Reading materials (9)	100	7	2–9	100	7	4–9
Audiovisual aids (11)	100	6	1–11	100	7	2–11

Note. N is the number of settings sampled in each country. [a]Number in ( ) indicates number of items for each category of equipment/materials listed in the Small-Group Provider Survey.

SUPPORT SERVICES, OUTSIDE RESOURCES, AND HOME-SETTING CONTACT

SUPPORT SERVICES

Providers in both countries were asked about support services available to families through the family day care setting. The providers indicated whether health care services and/or educational services are available directly (on site, while children are being cared for in the day care home) or by referral (families are given information about off-site evaluation or examination facilities).

Table 10.13, below, shows that across the 6 categories of services, about half (43%–47%) of settings sampled in the United States do not offer additional services either on site or by referral. The remaining homes offer services more often by referral than on site; on-site services across the 6 categories are offered only 20% of the time or less.

Table 10.13 Percentage of family day care homes offering various support services

	Finland (*N* = 84)			United States (*N* = 32)		
Support Service	On Site	By Referral	Not Available	On Site	By Referral	Not Available
Developmental assessment	16	65	19	20	33	47
Educational evaluation	19	65	16	13	43	43
Preventive/remedial health services	8	76	17	10	45	45
Vision testing	3	65	33	13	40	47
Hearing testing	3	65	33	13	40	47
Special education	1	69	30	10	43	47

Note. *N* is the number of settings sampled in each country.

On-site services are also offered only rarely in Finland. Special education services are the least common, offered in only 1% of family day care homes; educational evaluation, offered on site 19% of the time, is the most common service. The referral process seems to be used much more often; about two thirds of providers (range across services = 65%–76%) indicated that they offer additional services to parents by referral.

OUTSIDE RESOURCES

Providers were also asked if they use any outside resources to enhance their program, such as inviting community resource people (firefighter, police officer) to talk to children or utilizing specialized teachers (music, art). A large percentage of homes in both countries (92% in Finland and 75% in the United States), as reported in Table 10.14 on the facing page, use some type of outside resource.

In family day care settings reporting the use of outside resources, field trips (including outings to a local working farm, museum, or pool) are the most commonly used type of resource in both Finland and the United States (97% and 79%, respectively). A majority of U.S. homes also invite librarians (58%) and community helpers (54%) to visit the day care home or visit these persons at their workplace. One third of U.S. home care providers also reported using a specialized teacher (e.g., art, music, movement, dance) as an outside resource to broaden children's experiences. In Finland, about one third or less of the family day care providers reported using community helpers, librarians, or specialized teachers.

Table 10.14 Percentage of family day care homes using outside resources

				Type of Outside Resource			
Country/Territory	*N*	% Using Outside Resources	*N* Using Outside Resources	% Field Trips	% Librarian	% Community Helpers, Police, Firefighter	% Specialized Teacher, Music/Art
Finland	84	92	77	97	36	36	23
United States	32	75	24	79	58	54	33

Note. N is the number of settings sampled in each country.

HOME-SETTING CONTACT

Family day care providers were asked to record how many times in the previous 6 months they used different types of communication with parents to convey information about their children or to encourage parents to be involved in day care (e.g., assist with a birthday party or special event, chaperone on a field trip). Contact that occurred 0–1 times in the previous 6 months was defined as *rarely or never;* 2–5 times (on average less than once a month), *occasionally;* and 6 or more times (on average once a month or more), *frequently.* In U.S. homes where the target child was the son or daughter of the provider, this variable was based on contact with parents of other children who attended the setting.

As seen in Table 10.15 (below), by far the most common type of contact between family day care providers and parents in Finland is individual meetings. Providers reported meeting with parents occasionally or frequently (5% and 85%, respectively). In fact, many providers reported that this type of contact occurs daily. Two types of contact seem to occur frequently (once a month or more) in U.S. family day care settings: notes/phone calls and social visits/extended conversation (both 55%). Meetings with parents also occur frequently in 41% of U.S. family day care homes.

Table 10.15 Percentage of family day care providers reporting the use of different types of home-setting contact with varying frequency

	Finland (*N* = 84)			United States (*N* = 32)		
Type of Contact	Never/ Rarely	Average <1/Month	Average 1/Month or More	Never/ Rarely	Average <1/Month	Average 1/Month or More
Notes/phone calls	31	29	40	17	28	55
Parent meetings	10	5	85	52	7	41
Parent volunteering	90	4	6	69	28	3
Social visits/extended conversation	52	16	32	31	14	55
Home visits	76	13	11	71	11	18
Parent assistance with caregiving	87	4	9	97	0	3

Note. N is the number of settings sampled in each country.

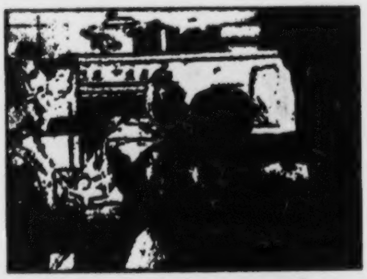
Only about one fourth of providers from both countries reported making home visits either occasionally or frequently. Providers in both countries reported that parents volunteer or assist with caregiving rarely or never, although a few settings in the United States reported that parents volunteer occasionally (28%).

CHARACTERISTICS OF FAMILY DAY CARE PROVIDERS

As Table 10.16 (below) indicates, the mean number of years of full-time education completed by U.S. providers is 14.1. All U.S. providers reported at least 12 years of education (range = 12–18 years). In Finland family day care providers generally have had less full-time education (9.7 years). There is a wide range, however, with some providers reporting as few as 7 years of education and one provider reporting 17.

An additional question asked of providers was *Have you attended a teacher-training program?* The findings reveal an interesting point: Nearly all (93.8%) family day care providers in Finland have attended teacher training at the secondary level, whereas only 37.5% of U.S. providers have attended teacher training. Further, the training U.S. providers have attended took place at different levels: secondary, vocational, tertiary, or a combination of these. Finnish providers, although having fewer years of full-time education, appear to have more specialized training for their task of operating a family day care setting.

When providers were asked if they hold certification for preprimary education, nearly two thirds in Finland indicated that they do; however, only 20% of providers in the United States indicated that they are certified.



In Finland, a family day care provider cares for a small group of children.

Table 10.16 Characteristics of family day care providers

		Age		Years of Full-Time Education				Years Working With 3- to 5-Year-Olds	
Country/Territory	*N*	Mean	Range	Mean	Range	% Attended Teacher Training	% Certified for Preprimary	Mean	Range
Finland	84	42.0	30–61	9.7	7–17	93.8	63.6	12.8	1–48
United States	32	36.9	24–65	14.1	12–18	37.5	20.0	9.7	1–30

Note. *N* is the number of settings sampled in each country.

Table 10.16 shows that although the age-range of home care providers is similar in Finland and the United States, the mean age of providers in Finland exceeds that of U.S. providers by approximately 5 years. It is not surprising, therefore, that on average U.S. providers have less experience working with 3- to 5-year-olds than providers in Finland (9.7 and 12.8 years, respectively). In both countries, however, there is a wide range of experience, from 1 year (or less) to as many as 48 years in Finland and 30 years in the United States. Almost all providers in both countries are female.

SUMMARY STATEMENTS

- **In both countries, a majority of family day care homes are licensed based on 7 types of licensing criteria, including space facilities, health regulations, and caregiver characteristics.**
- **In the United States, family day care homes are generally licensed to serve a wide age-range of children, from less than 1 year to 8–12 years of age. In Finland, the age-range is somewhat narrower, from 1 year to 6–7 years.**
- **In both Finland and the United States, most providers keep 2 to 3 types of records pertaining to children, including attendance records, background information, and medical records.**
- **Family day care services are generally available for 46 weeks per year in Finland and 50 weeks in the United States.**
- **The median staff-child ratio in family day care homes is 1:4 in both countries. This is in accordance with licensing standards in both countries.**
- **Space available per child in both Finnish and U.S. family day care homes (14 m^2 and 19 m^2, respectively) exceeds recommendations.**
- **Findings related to the type of equipment and materials present in family day care homes suggests that homes in both countries are fairly well equipped and also offer variety. The average number of types of equipment and materials present in family day care homes is comparable to that found in child care centers in both countries.**
- **Finnish providers reported fewer years of full-time education than providers in the United States, although providers in Finland are more likely to have specialized training and to be certified to work with preprimary children.**

SUMMARY AND IMPLICATIONS

XI

CLOSING THOUGHTS

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The IEA Preprimary Project (IEA/PPP) is a unique achievement in the field of early childhood research. Built on a solid foundation of careful instrument development and rigorous sampling and data collection procedures, it has been carried out jointly by early childhood researchers in 15 countries. The participating countries span 4 continents, vary in size, have diverse political philosophies, and represent different degrees of industrialization. The study is especially valuable because in most cases the sample of early childhood settings in a country is representative of that country's major types of settings. Most participating countries selected two or more types of settings that were either used by large numbers of families or were important for public policy reasons. Data collection took place in over 30 types of settings and approximately 1,500 individual settings across countries.

The Provider Survey, the instrument used in the study to gather information on structural characteristics in early childhood settings, was developed over a 3-year period by researchers in all participating countries. The instrument is comprehensive, providing information on a broad range of structural characteristics considered to be important for child development and policy decisions. A particular strength of the study is the fact that data collection response rates exceeded 80% in nearly every country; thus, we can be confident that the findings accurately reflect setting characteristics.

In today's world of instant global communication and interdependence among nations, the study provides a wealth of information on which to base discussions and decisions about the present and future status of preprimary education and child care. In this chapter, we will review selected findings regarding structural characteristics and discuss their import for the field of child care and education as it moves into the twenty-first century. The chapter is organized into sections according to the major topics presented in the national profiles and findings chapters: management policies, patterns of operation, physical characteristics, support services, characteristics of teachers and caregivers, and family day care.

MANAGEMENT POLICIES

SPONSORSHIP

We noted earlier in this monograph that decisions about the sponsorship and management of early childhood settings flow, either explicitly or implicitly, from a country's policy regarding early childhood care and education. In countries where there is a long tradition of government responsibility for child welfare, there is likely to be a well-articulated national policy regarding early childhood services and at least some government sponsorship of these services. In countries where the care and education of young children are seen primarily as the responsibility of families, there is likely to be no unified government policy related to young children and little government sponsorship of early childhood programs (Cochran, 1993, 1997; Lamb and Sternberg, 1992).

Indeed, the IEA/PPP found evidence for this. In Finland, with its traditional Scandinavian emphasis on social welfare for families, national policy guarantees public day care for children between the ages of 1 and 6 years. The government serves as a sponsor for all early childhood settings. In contrast, the tradition in Nigeria and Indonesia is for extended families to care for children, and there is little government sponsorship of early childhood settings in these nations. In some countries in which families have traditionally been responsible for the care and education of young children, the government sponsors educational or enrichment programs for children deemed to be physically or economically disadvantaged. The Head Start Program in the United States and disadvantaged national schools in Ireland are examples of such programs.

A small group of children in Hong Kong use their fine-motor skills as they play with construction materials.

It is interesting to note that the percentage of children who attend early childhood programs in various countries is not necessarily related to the extent of government sponsorship of such programs. In Hong Kong, for example, there is no government sponsorship of preprimary programs, yet the national profile states that "all children aged 3 to 6 years attend preschools." In an earlier IEA/PPP publication, the director of the preprimary project in Hong Kong offered this explanation:

> [The high proportion of preschool-aged children enrolled in programs] reflects the value that the Chinese traditionally attach to education, but it also reflects the economic and educational situation. Although a university degree has distinct economic advantages in Hong Kong, university places are only available for 2 percent of the population. Consequently university entrance competition is very keen, and success in previous schooling becomes a crucial factor. Formal schooling is an important avenue to social and economic mobility, and preschool is perceived as the first step along this avenue. (Opper, 1989, p. 120)

The findings presented in Chapter 5 reveal that when settings have a single sponsor, it is most likely to be a government agency, religious organization, or private organization/person; however, many settings across countries have multiple sponsors. Whether patterns of multiple sponsorship are complex, as in Indonesia (where there are many combinations of sponsors), or simple, as in Belgium (where private nursery schools are cosponsored by a government agency and a religious organization), it would seem to be especially important that all sponsors of a single setting or type of setting share a common sense of purpose and clear patterns of communication. Whether the sponsors share responsibilities or each has a special function, such as fundraising, regulation, or curriculum planning, all sponsors must work together toward the same clearly articulated goals for the benefit of the children. This can certainly be a complicated and difficult process, and countries that are just beginning to launch large-scale programs can learn from the experience of countries with a long history of operating early childhood care and education programs.

LICENSING/CERTIFICATION

It is encouraging that the IEA/PPP data document that nearly all types of settings across the 14 countries reporting findings are licensed, certified, or in the process of becoming so. Information from the national profiles shows that the licensing process is almost always a function of a government agency, either at the national or local level. Licensing standards vary greatly, both within and across countries, and policymakers must recognize that it does not make sense to apply the same standards to programs all over the world. As was pointed out in Chapter 2, in some developing countries early childhood services are scarce and the need is great. Where resources are limited, it is most productive for licensing agencies to ensure that the care is safe and to help centers improve conditions rather than to impose impossible standards that lead centers to circumvent the licensing process altogether (Evans, 1997). Of course, licensing standards are most effective when programs are supervised on a regular basis. The IEA/PPP data show that, while most settings are supervised on at least a yearly basis, apparently some settings in a small number of countries do not have regular supervision.

FEES

Income to operate early childhood settings comes from a variety of sources. The IEA/PPP study found that it is common for settings to charge fees to families, and national profiles noted that in some cases fees are charged on a sliding scale, based on family income or other factors. Government-sponsored settings may or may not charge fees to parents. In Finland, for example, all settings are government-sponsored and charge fees, while in the Belgian French Community, neither the government-sponsored public nursery schools nor the private nursery schools charge fees. Many of the national profiles noted that government funding for preprimary services may come to parents in the form of tax credits or vouchers tied to specific eligibility criteria. Information in the national profiles also shows that, in most countries, settings' income from parent fees is supplemented by subsidies from the government or private organizations.

PATTERNS OF OPERATION

OPERATING HOURS

As we have previously pointed out, the structure and operating patterns of preprimary programs vary according to their purpose, which in turn is influenced by cultural beliefs, the needs of parents and children, and available resources. Perhaps the most striking feature related to the operating patterns of settings included in the IEA/PPP study is the wide variation, both within and across countries, in the hours of operation. This variation is associated with several factors, but the most prevalent one is the distinction between settings that operate primarily for the purpose of child care and those that operate primarily for educational or enrichment purposes. Among the countries participating in the study, Hong Kong and Greece both provide clear examples of this distinction. Child care centers are open, on average, 8 and 10 hours per day in Greece and Hong Kong, respectively. In contrast, kindergartens, which traditionally have an educational focus, operate only 3½ hours per day in both Greece and Hong Kong.

Clearly, the operating hours of child care programs are more likely to accommodate parents' work schedules, which generally demand at least 8-hour days. This is supported by the Phase 1 preprimary finding cited in Chapter 6 regarding the difference between the percentage of employed mothers in Greece using child care centers (94%) and kindergartens (33%). Over the past 50 years, the number of mothers in the workforce worldwide has multiplied, generating an increased need for full-day child care coverage. In the United States, recent welfare reforms require that most welfare-dependent mothers with preschool children find employment. Many preschool children of welfare recipients attend Head Start or other educational enrichment programs, which traditionally operate only part-day. In the changing climate brought about by welfare reform, parents entering the workforce are struggling to find full-day coverage for their children in Head Start, and program directors are piecing together wraparound services by collaborating with child care facilities and seeking additional funding to expand their own programs. Working families may find themselves in the difficult position of having to choose between full-day child care and part-day educational enrichment for their children.

As family demographics and priorities shift, program planners and policymakers around the world need to continue to be sensitive to changing family needs and seek creative solutions that combine the best of child care and education for preprimary children. To accommodate parents' work schedules there need to be more programs that operate during evening and weekend hours, as some settings in China, Finland, and Slovenia already do.

GROUP SIZES AND STAFF-CHILD RATIOS

Group size and staff-child ratio have been used as structural benchmarks for measuring quality in preprimary settings for decades. The IEA/PPP data for group size and staff-child ratio are particularly interesting because they illustrate the complexity of assessing these important structural characteristics accurately. Data collectors recorded actual counts of the adults and children in a classroom at various times throughout the morning's observation. The data show that the number of adults and children present in the classroom changed in the course of a morning in every type of setting. An awareness of these normal fluctuations during the day leads to an appreciation of the difficulties in monitoring compliance to regulations or obtaining accurate measures of these variables for research purposes.

According to the national profiles of countries that provide group-size recommendations, maximums range from a low of 20 (in Finland) to a high of 30 (in both Slovenia and Hong Kong). As pointed out in Chapter 6, study data show that median group size in countries with group-size regulations falls within these recommended limits; however, maximum group size often exceeds these limits. The finding that larger group sizes are seen primarily in Asian and African settings may be due in part to the possibility that these developing countries are using their limited resources to expand availability and serve greater numbers of children.

Child-sized sinks enable children in a public kindergarten in Catalonia (Spain) to wash their hands without adult assistance.

Group size must be considered with staff-child ratio to gain a useful picture of the group environment within the classroom. According to the national profiles, all of the countries participating in the study have recommendations or regulations regarding staff-child ratios. The ratios vary across countries and across setting types. The most stringent recommendations, 1 staff member for 7 or 8 children, are found in some settings in Finland, Ireland, and the United States. The least stringent recommendations, 1 staff for 30 to 40 children, are found in some settings in Hong Kong, Nigeria, and Thailand. According to the data collected for the study, in most cases median staff-child ratios meet country recommendations.

Generally, recommendations specify larger groups and more children per staff member in educational settings, such as kindergartens, than in child care settings. Although this initially seems counterintuitive, the disparity may be explained by differences in the children's activities and the teaching/caretaking style in these two types of settings. In child care centers, groups of children are more likely to be simultaneously pursuing a variety of activities, which presumably would require more staff to supervise the groups. In preprimary educational settings, where large-group activities and didactic teaching are common, a large group of children may require only one teacher.

PHYSICAL CHARACTERISTICS

There are three basic features to consider when examining the physical characteristics of early childhood settings: the amount of space, the organization of space, and the nature of the equipment and materials available. Although one can certainly find examples of extreme variations on each of these features among the selected settings in the participating countries, IEA/PPP data show that median values generally fall within the limits recommended or mandated for each setting.

Researchers advise that the optimal amount of space per child in early childhood settings is in the range of 25–35 square feet (2.32–3.25 m^2) (Ramsey & Reid, 1988; Smith & Connolly, 1980). Results from experimental research in western countries suggest that having less than 15 square feet (1.4 m^2) of space per child may inhibit physical activity and social interaction and increase aggressive behavior. Interestingly, there is evidence that these effects of high density are relative to the amount of space *typically* available in settings. For example, in South African settings, where densities are typically 1.5 m^2, negative effects were not observed until densities fell to less than 1.5 m^2 (Liddell & Kruger, 1987). Although more research needs to be carried out in this area, these findings should caution policymakers and providers to not be too quick to apply western standards in countries where children do not typically experience western conditions. In fact, data from the preprimary study indicate that, in the majority of settings reporting data (14 of 25), estimated space densities are at or above the minimum recommended 2.32 m^2. In only 3 types of settings, rural and urban kindergartens in China and kindergartens in Hong Kong, did densities fall below 1.4 m^2.

According to IEA/PPP findings, in the types of settings for which data are available, children typically have the use of one or two rooms. In addition, most settings have an outdoor play area, which they use on a daily basis. Rooms structured for children—that is, having child-sized furniture—are also common, found in 80% or more of the settings surveyed around the world. A variety of types of play equipment and materials are found in settings in all countries, although some settings in developing countries have a limited number and variety of equipment and materials.

In sum, the data show that, with few exceptions, basic physical characteristics of early childhood settings fall within acceptable limits. For those situations where characteristics such as space density do not meet western standards (e.g., kindergartens in China and Hong Kong), we must keep in mind that the concept of space is highly influenced by one's cultural experiences (Greenman, 1988). What a westerner might experience as impossibly crowded conditions are accepted as the norm in some Asian and African countries.

It is most helpful for providers and policymakers to look at the physical characteristics of a setting in the context of a particular culture and a child's overall experience in the setting. In settings where space is limited, do children have the opportunity to play outside or to use a larger playroom at certain times during the day? If not, are there other opportunities for physical exercise? If the physical space is crowded, are there enough materials for all of the children? If materials and equipment are limited, do teachers and caregivers take advantage of natural and locally produced materials, which are often readily available and may be free?

In an early childhood programming guide recently prepared for developing countries, Evans (2000) discusses positive and negative aspects of using natural and locally produced materials in early childhood settings. While the use of such materials can significantly reduce costs, there are several cautions that apply. All materials, whether natural or manufactured, must be examined and determined to be safe for children's use. For example, Evans states, ". . . wooden toys should be sanded so that children do not get slivers, puzzles pieces should fit together correctly, . . . toys should not have sharp edges or small detachable pieces that can be swallowed, and unleaded paint should be used" (p. 327).

It is also important to assess whether or not the room arrangement is in harmony with the teaching style. If teachers encourage individual initiative in play, are the play materials clearly organized and readily available so children can access them on their own? If the focus is on large-group activities, are distractions minimized and are all children able to see and hear the teacher without difficulty?

In other words, as providers, evaluators, and policymakers, we must assess the physical environment from the child's perspective, with the goal of creating an environment that is safe, pleasant, and enriching within the limits of available resources.

SUPPORT SERVICES

Access to support services and outside resources varies greatly among preprimary programs around the world and is likely to be tied to the purpose of a particular program. The extent of parent involvement in programs also varies across countries and is influenced by tradition and cultural norms.

SUPPORT SERVICES

Analysis of the data on support services, reported in Chapter 8, suggests that educational programs tend to have more support services than child care programs. Perhaps the most striking examples of support services in educational programs are in Head Start settings and public school preschools in the United States. These settings offer a rich array of services, either on site or by referral, for the disadvantaged children they serve. The provision of such services on site is expensive, and it is not necessary or even appropriate for all programs to offer extensive services on site. However, many of the settings in this study do not offer services on site *or* by referral. It is not possible to say, based on the data collected for the present study, why services are not available by referral. Perhaps the services are not locally available or perhaps health-related referrals are not seen as the responsibility of preprimary personnel. It is also possible that in some settings preprimary teachers and caregivers have not been educated to recognize sensory, medical, or nutritional problems that require intervention by outside professionals. Or it may be the case that the problems *are* recognized, but staff do not know what services exist or how to make a referral.

A nurse works with a teacher to plan optimal care in a Finnish child care center.

If one believes that a child's ability to learn is influenced by his or her health, nutritional, and psychosocial status, it is logical to argue that teachers and caregivers should be educated to recognize potential needs in these areas. If problems are noted, preprimary staff should have a plan of action to assist families in securing support services when they are needed. Ideally, teachers and caregivers in all preprimary settings should be able to recognize and prioritize health and psychosocial needs and have access to a referral network.

OUTSIDE RESOURCES

In contrast to support services, which are usually provided by professionals and are apt to be expensive, the IEA/PPP data show that most settings make use of outside resources. As noted in the literature review, incorporating community resources into early childhood programs offers many benefits, especially in developing countries where funds for extracurricular activities are scarce (Myers, 1995). The use of volunteers and community resources provides enrichment to all those involved and fosters a spirit of communication and mutual respect.

PARENT INVOLVEMENT

Parent involvement in early childhood programs is an especially difficult area to research because it can take many different forms and serve a variety of purposes. The tables related to parent involvement in Chapter 8 illustrate the complexity of this area; nevertheless, the tables show quite clearly that two types of parent involvement, individual meetings with parents and parent group meetings, are quite prevalent across countries and across types of settings.

Parent group meetings can serve a variety of purposes, one of which is to provide parents with support and education. In Chapter 2 it was noted that this type of intervention can be especially valuable for parents in mobile cultures who do not have extended family nearby, and also for parents who are at a social disadvantage in developed or developing countries. Program planners should examine opportunities to expand their efforts to reach parents through parent group meetings.

Some types of parent involvement are rare, for example, the use of parent volunteers on special occasions, parent participation on advisory boards, and parent participation as teachers or aides. The general lack of parent participation as volunteers or teacher aides may be explained by the large numbers of parents worldwide who are employed; these parents are likely to have little time to spend in their child's classroom. Parent participation on advisory boards is an administrative matter and is not likely to occur unless it is mandated by policy, as it is in Head Start settings in the United States. Although the practice is thought to broaden the perspective of both the advisory board and the parent participants, more research is needed to document the effects of such participation.

CHARACTERISTICS OF TEACHERS AND CAREGIVERS

Teacher behavior either directly or indirectly affects all aspects of children's experience in a preprimary care or education setting. Research in western countries has established a relationship between teachers' educational background and their behavior and has further found that these factors are linked to the quality of preprimary settings (Cost, Quality & Child Outcomes Study Team, 1995; Whitebook et al., 1989). For these reasons, the educational background of teachers and caregivers is one of the most important characteristics to consider when planning and evaluating preprimary programs.

It is encouraging to observe that countries around the world recognize the importance of teacher education and training. Evidence for this is presented in the national profiles and the tables in Chapter 9, which show that nearly every country participating in the preprimary study has minimum education requirements for teachers, specialized teacher training, and some type of teacher certification. However, the requirements vary widely across countries. Several countries noted in their profiles that university training is required for teachers in some preprimary programs, while other countries reported that teacher training is provided through a specialized course of studies presented in secondary schools. Many countries also noted that educational requirements for preprimary teachers are being upgraded. For example, in Greece, Italy, and Thailand, there have been recent moves toward providing university-based training for preprimary teachers. This finding corroborates the report of the European Commission (1995), which states that all member countries have adopted a system requiring 3 years of postsecondary training to obtain a qualification for preprimary teaching.

The situation is different for those working in child care. As noted in Chapter 2, preprimary education programs and child care programs generally have different historical roots, administrative structures, and program goals. In many countries, teachers in early childhood education programs are considered professionals, while caregivers in child care settings are not. Descriptions of teacher education presented in the national profiles verify this perception. In some countries, for example, Greece and Thailand, child care personnel are not required to have university training, while teachers in preprimary educational settings are required or encouraged to have 4-year university degrees. There is evidence that educators and program planners are rethinking these distinctions and questioning whether it makes sense to have two very different educational paths for those who work with preprimary children (Bredekamp & Willer, 1993; Calder, 1996).

Much of the information regarding teacher education and training presented in Chapter 2 and Chapter 9 concerned preservice training of preprimary teachers or caregivers; however, inservice

Learning to cooperate is an important part of outdoor play time in a U.S. setting.

training can be especially valuable for staff who lack specialized education in the field of early childhood. In the recent early childhood programming guide prepared for developing countries, Evans (2000) discusses the role of inservice training for preprimary staff. She states, "There is a tendency to front-load training, either by hiring only ECCD [early childhood] workers who have passed through a formal course . . . or by establishing a special training period at the outset of a program but providing little thereafter. In general, on-the-job training has been a weak link in early childhood programs" (p. 246). Evans notes that inservice training can be used to prepare, over a period of months, untrained personnel who might later assume the duties of staff who leave their positions. Also, it is often the case that even preprimary staff who have had preservice training have not learned to work with adults (e.g., auxiliary staff, parents), and this type of learning may best be accomplished using an inservice format.

FAMILY DAY CARE

In addition to providing information about child care and education in group settings, the IEA/PPP study takes a close look at family day care in 2 countries, Finland and the United States. In these 2 countries, family day care has grown out of markedly different early childhood policies. In Finland, home day care services are part of a family policy that is an integral component of the country's overall philosophy of government responsibility for social welfare (Lindgren, 1978). In contrast, there is no central government policy regarding family day care in the United States, and standards and regulatory policies vary from state to state.

In spite of these philosophical and policy differences, many of the structural characteristics of family day care homes examined in the present study are similar in the 2 countries. In both countries, most settings included in the study are licensed or certified according to similar criteria, caregivers in most settings keep a variety of records, and most settings charge fees for child care. Operating schedules are also similar in the two countries, although U.S. settings, on average, are open slightly longer each day and for more weeks per year. Average adult-child ratios are identical and group sizes are similar; both are within recommended limits for the 2 countries. Even physical characteristics of the home setting, such as space per child and materials and equipment, are quite similar.

The most striking difference between the two countries is related to the education and training of family day care providers. In Finland, family day care providers have, on average, fewer years of full-time education than providers in the United States. However, almost all family day care providers in Finland have attended teacher training and 64% are certified in preprimary education, while only about 38% of providers in the United States have attended such training and only 20% reported being certified. These figures, no doubt, are a reflection of the differences in child care policy in the 2 countries. There are no national requirements for training or certification of family day care providers in the United States, and state requirements are generally weak or nonexistent. This should be a matter of concern to providers and policymakers interested in the quality of family day care. Research has demonstrated positive associations among caregiver training, caregiver behavior, and quality of care (see review by Kontos, 1992). Most of the findings come from correlational studies and the direction of causality cannot be assumed; however, this is an important area and further studies are needed to determine the impact of training (or lack thereof) on caregiver behavior and child outcomes.

IN CONCLUSION

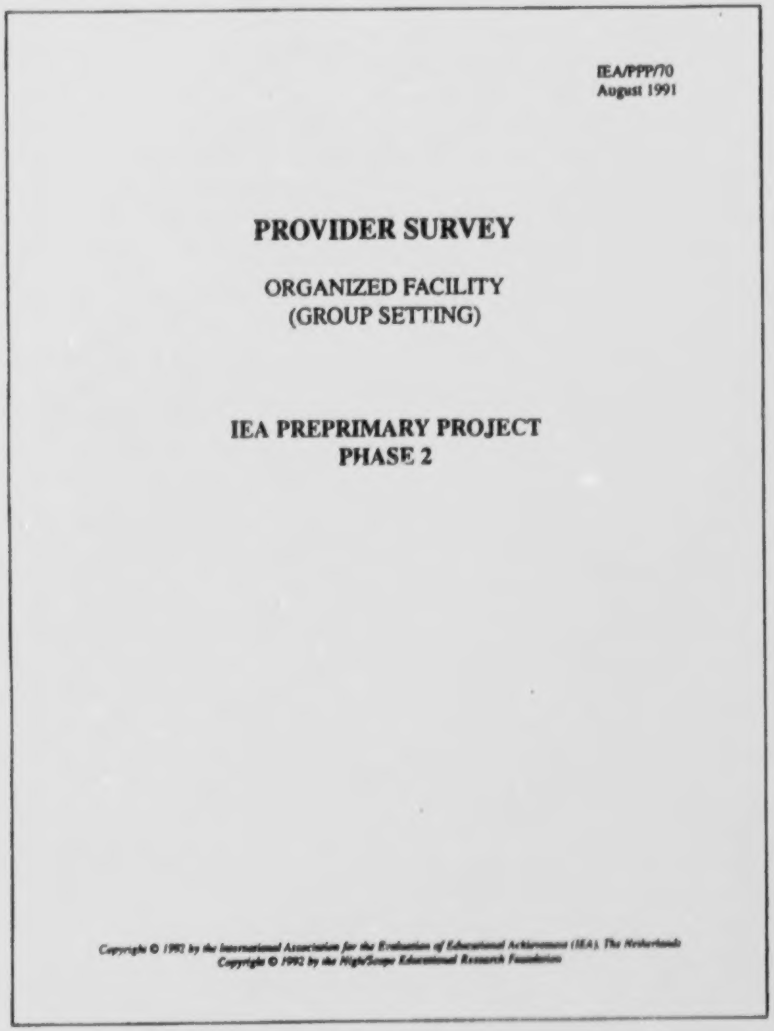
In this chapter we have discussed the significance of many of the IEA/PPP study findings related to structural characteristics. Although it has been instructive to examine some of the findings separately for educational settings and for child care settings, readers must realize that all early childhood settings provide some educational services and some child care services. In recent years the word "educare" has been coined, and as Smith (1992) states, " . . . [the term] recognizes the impossibility of separating care and education into services designated as providing mainly care or mainly education" (p. 383). It is likely that in the future the differences between child care and educational settings will become even less distinct as educational programs expand their hours of coverage and child care settings put more emphasis on educational goals.

During the planning of Phase 2 of the IEA/PPP, the 15 national research coordinators chose to include all major types of early childhood settings in the study both to ensure that information was gathered in all these types and to allow for comparisons among settings with different labels (e.g., kindergartens, child care centers). They wished to see if a specific label denoted specific characteristics. While certain *structural* characteristics in settings with educational labels (e.g., kindergartens) may differ from those in settings with child care labels (e.g., child care centers), the same may not be true for *process* characteristics, such as staff-child interaction and child behaviors.

The present monograph examines structural characteristics in preprimary settings with the understanding that these characteristics interact with one another to create the context in which the child spends his or her time. In research, structural characteristics are often thought of as proxy or marker variables for the more dynamic process characteristics. In our next monograph, we will report on such process characteristics in early childhood settings in 15 countries, look at similarities and differences in process characteristics among various types of settings, and explore relationships among structural and process characteristics.

APPENDIX A

ORGANIZED FACILITY/GROUP SETTING PROVIDER SURVEY



IEA/PPP/70
August 1991

PROVIDER SURVEY

ORGANIZED FACILITY
(GROUP SETTING)

IEA PREPRIMARY PROJECT
PHASE 2

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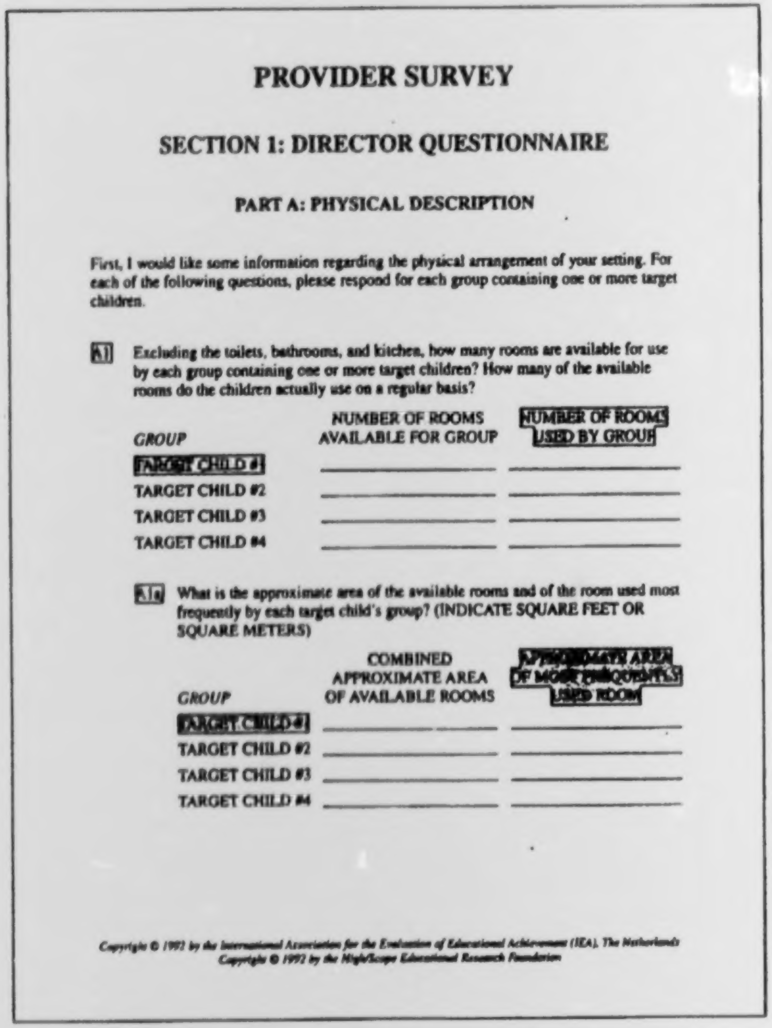

PROVIDER SURVEY

SECTION 1: DIRECTOR QUESTIONNAIRE

PART A: PHYSICAL DESCRIPTION

First, I would like some information regarding the physical arrangement of your setting. For each of the following questions, please respond for each group containing one or more target children.

A1 Excluding the toilets, bathrooms, and kitchen, how many rooms are available for use by each group containing one or more target children? How many of the available rooms do the children actually use on a regular basis?

GROUP	NUMBER OF ROOMS AVAILABLE FOR GROUP	NUMBER OF ROOMS USED BY GROUP
TARGET CHILD #1		
TARGET CHILD #2		
TARGET CHILD #3		
TARGET CHILD #4		

A1a What is the approximate area of the available rooms and of the room used most frequently by each target child's group? (INDICATE SQUARE FEET OR SQUARE METERS)

GROUP	COMBINED APPROXIMATE AREA OF AVAILABLE ROOMS	APPROXIMATE AREA OF MOST FREQUENTLY USED ROOM
TARGET CHILD #1		
TARGET CHILD #2		
TARGET CHILD #3		
TARGET CHILD #4		

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Note: Shading indicates data analyzed for inclusion in this monograph.

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A2. Approximately how many children are typically in each room at one time?

GROUP	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
TARGET CHILD #1	____	____	____	____	____
TARGET CHILD #2	____	____	____	____	____
TARGET CHILD #3	____	____	____	____	____
TARGET CHILD #4	____	____	____	____	____

A3. What is the primary purpose for which each room is used (e.g., classroom, music room, gross-motor room, etc.)?

GROUP	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
TARGET CHILD #1	____	____	____	____	____
TARGET CHILD #2	____	____	____	____	____
TARGET CHILD #3	____	____	____	____	____
TARGET CHILD #4	____	____	____	____	____

A4 Is there at least one separate room available for adult use only?

1. YES   5. NO

A5 Is the setting furnished and/or structured for use by children?

1. YES   5. NO → GO TO A6

↓

A5a. In what ways is the setting furnished/structured for use by children?

____ a. CHILD-SIZED TABLES AND CHAIRS
____ b. CHILD-SIZED TOILETS AND SINKS
____ c. SHELVES LOW ENOUGH FOR CHILDREN TO REACH SAFELY
____ d. BOOKS/TOYS/EQUIPMENT APPROPRIATE FOR CHILDREN SERVED AT THE SETTING
____ e. OTHER, SPECIFY: ______________________

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A6. Which of the following does your setting/home have?

[NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]

	YES	NO
FIRE ALARM SYSTEM (ELECTRIC)	____	____
FIRE ALARM SYSTEM (MANUAL)	____	____
FIRE EXTINGUISHER(S)	____	____
KITCHEN	____	____
WASHBASINS	____	____
RUNNING WATER/TAP WATER	____	____
FLUSH TOILET FACILITIES (INDOOR)	____	____
WORKING TELEPHONE	____	____
WORKING WASHING MACHINE	____	____
WORKING CLOTHES DRYER	____	____
BATH OR SHOWER	____	____
ELECTRICITY/SOME TYPE OF LIGHTING SYSTEM	____	____
FAN	____	____
AIR CONDITIONER OR OTHER TYPE OF COOLING SYSTEM	____	____
HEATING SYSTEM	____	____
FIRST-AID SUPPLIES	____	____
WORKING REFRIGERATOR	____	____
CAR IN WORKING ORDER	____	____
BICYCLE IN WORKING ORDER	____	____
MOTOR SCOOTER IN WORKING ORDER	____	____
SCHOOL BUS IN WORKING ORDER	____	____
MOTORCYCLE IN WORKING ORDER	____	____

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A7 Do you have an outdoor play area?

[1. YES] ↓ [5. NO] → GO TO A8

A7a Is it on the property?

[1. YES] → GO TO A7e [5. NO] ↓

A7b Is it within walking distance?

[1. YES] ↓ [5. NO]

A7c. Is the play area located in:

___ a. A PUBLIC PARK/PLAYGROUND
___ b. A PRIVATE PARK/PLAYGROUND
___ c. OTHER, SPECIFY: ______________________________

A7d. Who else shares the play area?

____

A7e What is the approximate size of the play area?

___ SQUARE FEET/METERS (circle one)

A7f. Does the play area have a roof?

[1. YES] [5. NO]

A7g How often do you use the play area?

____

A8 Is there an indoor play area for the children to use?

[1. YES] ↓ [5. NO] → GO TO B1

A8a. What is the approximate size of the indoor play area?

___ SQUARE FEET/METERS (circle one)

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PART B: MANAGEMENT

* = International Option

SPONSORSHIP AND FEE STRUCTURE

B1 If this program is sponsored, please tell me who the sponsor(s) is/are. Please tell me about all of the sponsors if there is more than one.

[NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]

___ EDUCATIONAL INSTITUTION
    ___PRIMARY/SECONDARY SCHOOL
    ___COLLEGE/UNIVERSITY
___ GOVERNMENT AGENCY
    ___ FEDERAL AGENCY
    ___ STATE/PROVINCIAL AGENCY
    ___ MUNICIPAL/LOCAL AGENCY
___ EMPLOYER SPONSORED
___ PRIVATE BUSINESS
___ PRIVATE INDIVIDUAL
___ RELIGIOUS GROUP/ORGANIZATION
___ MILITARY INSTITUTION
___ VOLUNTEER PARENT ORGANIZATION
___ VOLUNTEER NEIGHBORHOOD ORGANIZATION
___ PARENT/NEIGHBORHOOD COOPERATIVE
___ OTHER VOLUNTEER ORGANIZATION
___ PRIVATE ORGANIZATION OR FOUNDATION
___ NONGOVERNMENT SOCIAL SERVICES AGENCY
___ COMMUNITY SERVICE AGENCY
___ OTHER, SPECIFY: ______________________________

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B2. I am going to read you a list of places and people that are often sources of funding for preprimary programs. For each one, please tell me if you receive funding from that source.

		YES	NO
___	[illegible] PARENT FEES	___	___
___	b. AGENCY	___	___
	1. FEDERAL/NATIONAL	___	___
	2. STATE AGENCY/PROVINCIAL	___	___
	3. MUNICIPAL OR LOCAL	___	___
	4. COMMUNITY SERVICE	___	___
___	c. FOUNDATION/ORGANIZATION	___	___
	1. PRIVATE FOUNDATION	___	___
	2. BUSINESS ORGANIZATION	___	___
	3. COMMUNITY GROUPS	___	___
	4. OTHER PRIVATE INDIVIDUALS	___	___
	5. RELIGIOUS ORGANIZATION	___	___
___	d. INSTITUTION	___	___
	1. EDUCATIONAL INSTITUTION	___	___
	2. MILITARY INSTITUTION	___	___
___	e. OTHER	___	___
	1. YOU PERSONALLY	___	___
	2. FUNDRAISING EVENTS	___	___
	3. OTHER, SPECIFY: ___________________		

B3. *Interviewer Checkpoint*

☐ 1. PARENT FEE (B2a) WAS CHECKED/PARENT FEES ARE COLLECTED
↓ ☐ 2. ALL OTHERS → GO TO B4

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[illegible] Do you charge different fees for any of the following reasons?

	YES	NO
AGE OF CHILD	___	___
TWO OR MORE CHILDREN FROM THE SAME FAMILY	___	___
PART-DAY CARE	___	___
CHILD NOT TOILET TRAINED	___	___
CHILD HAS EMOTIONAL, PHYSICAL, OR DEVELOPMENTAL NEEDS WHICH REQUIRE SPECIAL ATTENTION	___	___
INCOME-BASED SLIDING SCALE	___	___
MOTHER OR RELATIVE WORKING IN THE SETTING	___	___

B3b. If you charge different fees for children of different ages, what amounts do you charge?

AGE OF CHILD	AMOUNT	MONETARY UNIT	TIME UNIT
___	___	___	___
___	___	___	___
___	___	___	___
___	___	___	___

B3c. If you determine your fees with an income-based sliding fee scale, please indicate below the range of fees you charge.

FROM			TO		
AMOUNT	MONETARY UNIT	TIME UNIT	AMOUNT	MONETARY UNIT	TIME UNIT
___	___	___	___	___	___

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*B4 Do the parents in your setting pay any additional charges, such as gym fees, music fees, fees for uniforms or books, fees for birthday parties, etc.?

1. YES   5. NO → GO TO B5

*B4a. Please list below the types of additional charges parents pay (*e.g.*, gym fees, uniforms) and the amount parents pay for each.

TYPE OF CHARGE	AMOUNT	MONETARY UNIT	TIME UNIT

MEALS/TRANSPORTATION

B5. Do you provide meals or snacks to any of the children for whom you provide care?

1. YES   5. NO → GO TO B6

B5a. Which meals or snacks?

___ a. BREAKFAST
___ b. LUNCH
___ c. DINNER
___ d. MORNING SNACK
___ e. AFTERNOON SNACK
___ f. BEDTIME SNACK

B5b. Are these meals included in tuition or do parents pay extra for them?

___ PARENTS PAY EXTRA
___ INCLUDED IN TUITION

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B5c. How much extra do parents pay?

AMOUNT	MONETARY UNIT	PER MONTH

B6. Do you provide transportation to and from children's homes?

1. YES   5. NO → GO TO B7

B6a. Is transportation included in tuition or do parents pay extra for it?

___ PARENTS PAY EXTRA
___ INCLUDED IN TUITION

B6b. How much extra do parents pay?

AMOUNT	MONETARY UNIT	PER MONTH

LICENSING

B7 Is this program presently licensed or certified by law?

1. YES   2. IN PROCESS   3. NO LICENSING REQUIRED   5. NO

GO TO B11

B7a How long has it been licensed or certified?____________________

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B7b Who is it licensed or certified by?

	NAME OF LICENSING BODY
___ EDUCATIONAL DEPARTMENT	____________
___ HEALTH DEPARTMENT	____________
___ SOCIAL WELFARE/SOCIAL SERVICES DEPT.	____________
___ PRIVATE ORGANIZATION/ FOUNDATION	____________
___ OTHER, SPECIFY:	____________

B7c Now I will read you a list of criteria licensing authorities consider before a license is issued to a preprimary program. Please tell me the criteria which facilitated licensing of this program. **[NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]**

___ a. AVAILABILITY OF PHYSICAL SPACE AND FACILITIES
___ b. AMOUNT AND NATURE OF EQUIPMENT
___ c. TEACHER/CAREGIVER CHARACTERISTICS
___ d. ADULT-CHILD RATIO
___ e. SCHEDULE OF OPERATION
___ f. FEE STRUCTURE
___ g. STAFFING
___ h. MANAGEMENT
___ i. CHILD CARE FOOD PROGRAM
___ j. HEALTH REGULATIONS
___ k. FIRE REGULATIONS
___ l. SAFETY REGULATIONS
___ m. OTHER, SPECIFY: ____________

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B7d Is the licensing or certification reviewed?

1. YES ↓   5. NO → GO TO B7f

B7e How often? _______

B7f Is there any supervision of the program by the licensing body?

1. YES ↓   5. NO → GO TO B8

B7g How often? _______

B7h. What type of supervision? ____________

B8. How many children are you licensed to serve?

_______NUMBER OF CHILDREN

B9. What is the age-range of the children you are licensed to serve?

____________AGE-RANGE OF CHILDREN

B10 Do you maintain and update records for any of the following?

___ a. BACKGROUND INFORMATION (ENROLLMENT APPLICATION) FOR EACH CHILD
___ b. ATTENDANCE RECORDS
___ c. MEDICAL RECORDS
___ d. DEVELOPMENTAL TESTS
___ e. EVALUATIONS
___ f. OTHER, SPECIFY:

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ADMISSIONS POLICY

B11 Preprimary programs have different policies regarding the children they admit. Is selection of the children for your program based on any of the following criteria?

		YES	NO
___	a. AGE		
___	b. CHILD SPEAKS (OR UNDERSTANDS) DOMINANT LANGUAGE OF SETTING	______	______
___	c. CHILD'S ABILITY TO CARE FOR SELF (DRESSING, EATING, TOILETING, WASHING, ETC.)	______	______
___	d. READINESS TESTS	______	______
___	e. DEVELOPMENTAL SKILLS TESTS (COGNITIVE, LANGUAGE, MOTOR, SOCIAL, ETC.)	______	______
___	f. SPECIAL NEEDS OF THE CHILD	______	______
___	g. OTHER, SPECIFY:	______	______

B12. Are there any particular categories of children or families who are targeted for recruitment or given priority for enrollment at your setting?

☐ 1. YES ☐ 5. NO → GO TO B13

B12a. If yes, which types of children or families?

		YES	NO
___	a. LOW-INCOME FAMILIES	______	______
___	b. HIGH-INCOME FAMILIES	______	______
___	c. HANDICAPPED CHILDREN	______	______
___	d. SINGLE-PARENT FAMILIES	______	______
___	e. WORKING PARENTS	______	______
___	f. STUDENT PARENTS	______	______
___	g. MEMBERS OF SPONSOR GROUP (E.G., EMPLOYEES OF SPONSOR)	______	______
___	h. MEMBERS OF RACIAL/ETHNIC GROUPS	______	______
___	i. OTHER, SPECIFY: ______________________		

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STAFF STRUCTURE/ROLE DIFFERENTIATION

B13. Who determines the administrative policies for this setting (e.g., tuition/fees, budget, staff salaries, hours of operation, adult:child ratio, availability of meals or transportation)?

B14. Who determines the enrollment policies for this setting (e.g., age-range of children, criteria for enrollment, specific types of children or families targeted for enrollment or given priority)?

B15. Who determines the curriculum and activities for this program?

IWER: fill in r's responses to each of the above questions in the following chart. Check all responses that apply for each question.

	ADMINISTRATIVE POLICIES	ENROLLMENT POLICIES	CURRICULUM AND ACTIVITIES
PROPRIETOR	______	______	______
DIRECTOR/PRINCIPAL	______	______	______
BOARD	______	______	______
AGENCY	______	______	______
PARENTS	______	______	______
STAFF	______	______	______
OTHER, SPECIFY: ______________________			

[illegible] I am going to read you a list of job titles. For each one, please tell me how many of that type work here. If this preprimary setting is part of a larger setting (e.g., a public school), please answer each question specifically for the staff in the preprimary section only. First, directors. How many directors work here?

B16a. How many of those are full-time?

B16b. How many of those are part-time?

B16c. How many of those are paid workers?

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B16d. How many are volunteers?

IWER: ask these questions for each job title employed at setting. If only one employed, just ask if full or part-time, and if paid or volunteer. If none employed, enter 0 under Number Total.

JOB TITLE	NUMBER TOTAL	NUMBER FULL-TIME	NUMBER PART-TIME	NUMBER PAID	NUMBER VOLUNTEER
a. Director	____	____	____	____	____
b. Assistant director	____	____	____	____	____
c. Principal	____	____	____	____	____
d. Assistant principal	____	____	____	____	____
e. Bookkeeper/ accountant	____	____	____	____	____
f. Secretary/clerk	____	____	____	____	____
g. Lead teacher	____	____	____	____	____
h. Head teacher	____	____	____	____	____
i. Instructor					
j. Teacher/co-teacher	____	____	____	____	____
k. Assistant teacher	____	____	____	____	____
l. Teacher aide/assistant	____	____	____	____	____
m. Child care worker	____	____	____	____	____
n. Family day care parent/provider	____	____	____	____	____
o. Day care worker	____	____	____	____	____
p. Day care assistant	____	____	____	____	____
q. Substitute	____	____	____	____	____
r. Social worker	____	____	____	____	____
s. Nurse	____	____	____	____	____
t. Janitor/maintenance person	____	____	____	____	____
u. Cook/cook aide	____	____	____	____	____
v. Driver/driver aide	____	____	____	____	____

w. Other managerial or administrative staff, specify: ____________

x. Other teaching or caregiving staff, specify: ____________

y. Other staff specialists, specify: ____________

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INSERVICE TRAINING/STAFF DEVELOPMENT

B17. Is inservice training available for the staff in this program?

1. YES | 5. NO → GO TO C1

B17a. Is it required?

1. YES | 5. NO

B18. How many hours per year of inservice training are available and/or required?

___ NUMBER OF HOURS AVAILABLE

___ NUMBER OF HOURS REQUIRED

B19. Who pays for the staff to attend inservice training sessions?

___ INDIVIDUAL STAFF MEMBERS PAY

___ PROGRAM PAYS FOR STAFF

___ OTHER, SPECIFY: ____________

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PART C: PATTERNS OF OPERATION

C1 How many weeks per year are services available at this setting?

___ WEEKS

C2 We would like to get an idea of the schedule of operation of this setting. Please tell me which days of the week you provide services in this setting. *(IWER: use the chart provided below to indicate whether the setting is open or closed for each day of the week.)*

C3 Please tell me what time the setting opens and closes for each of the days you provide services. *(IWER: in the spaces provided in the chart below, fill in the hours the setting opens and closes each day.)*

C4 Typically, how many hours does the average 3½- to 4½ -year-old child spend in your setting each day? *(IWER: use the column provided in the chart below to record the number of hours the average child spends in the setting each day.)*

C2 DAY OF WEEK		C3 HOURS OF DAY	C4 TIME IN SETTING
a. MONDAY	OPEN/CLOSED	__AM PM TO __AM PM	________
b. TUESDAY	OPEN/CLOSED	__AM PM TO __AM PM	________
c. WEDNESDAY	OPEN/CLOSED	__AM PM TO __AM PM	________
d. THURSDAY	OPEN/CLOSED	__AM PM TO __AM PM	________
e. FRIDAY	OPEN/CLOSED	__AM PM TO __AM PM	________
f. SATURDAY	OPEN/CLOSED	__AM PM TO __AM PM	________
g. SUNDAY	OPEN/CLOSED	__AM PM TO __AM PM	________

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PART D: AVAILABILITY OF ANCILLARY SERVICES AND OUTSIDE RESOURCES

D1 I am going to read a list of services. For each one, please tell me whether it is available to children in your program on site, by referral, or is not available.

	AVAILABLE ON SITE	AVAILABLE BY REFERRAL	NOT AVAILABLE
CHILD PSYCHOLOGICAL SERVICES	______	______	______
DEVELOPMENTAL ASSESSMENT	______	______	______
EDUCATIONAL EVALUATION OF CHILD	______	______	______
MEDICAL SERVICES	______	______	______
DENTAL SERVICES	______	______	______
PREVENTIVE/REMEDIAL HEALTH SERVICES	______	______	______
NUTRITIONAL SERVICES	______	______	______
VISION TESTING	______	______	______
HEARING TESTING	______	______	______
PARENT TRAINING	______	______	______
SECOND-LANGUAGE TRAINING	______	______	______
SOCIAL WORK SERVICES	______	______	______
SPECIAL EDUCATION	______	______	______

a. OTHER SERVICE, SPECIFY TYPE: ________________________

o. OTHER SERVICE, SPECIFY TYPE: ________________________

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D2 Does your setting use any outside resources to enhance the program you provide? (For example, do you invite resource people, such as community helpers, to come to your setting to talk to the children, take field trips to farms, police stations, etc.?)

☐ 1. YES ☐ 5. NO → GO TO E1

D2a Which resources do you use?

		YES	NO
___	a. ART TEACHER	______	______
___	b. MUSIC TEACHER	______	______
___	c. MOVEMENT/DANCE TEACHER	______	______
___	d. LIBRARIAN	______	______
___	e. LOCAL FIELD TRIPS (HOW OFTEN?________)	______	______
___	f. COMMUNITY HELPERS (POLICE, FIREFIGHTER, ETC.)	______	______
___	g. PARENTS/FRIENDS/RELATIVES WITH SPECIAL TALENTS OR HOBBIES TO SHOW THE CHILDREN	______	______
___	h. ATHLETICS/GYMNASTICS, SWIMMING	______	______
___	i. OTHER, SPECIFY:	______	______

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PART E: PARENT INVOLVEMENT

E1 I am going to read you a list of different types of contact which may sometimes occur with parents. For each one, please tell me how many times, on average, that type of contact has occurred with parents of the target child(ren) within the last six months. ***(If no contact of a certain type has occurred during the last six months, mark 0 in the space provided for that type of contact.)***

NUMBER OF TIMES CONTACT HAS OCCURRED IN LAST SIX MONTHS

TYPE OF CONTACT	TARGET CHILD #1	TARGET CHILD #2	TARGET CHILD #3	TARGET CHILD #4
a. HOME VISITS WITH PARENTS	______	______	______	______
b. NEWSLETTER OR GENERAL NOTES TO PARENTS	______	______	______	______
c. INDIVIDUAL NOTES OR PHONE CALLS TO PARENTS	______	______	______	______
d. MEETINGS WITH INDIVIDUAL PARENTS AT THE SETTING	______	______	______	______
e. PARENT GROUP MEETINGS	______	______	______	______
f. PARENT PARTICIPATION ON ADVISORY BOARD	______	______	______	______
g. PARENT PARTICIPATION AS TEACHER	______	______	______	______
h. PARENT PARTICIPATION AS AIDE	______	______	______	______
i. PARENT VOLUNTEERING FOR SPECIAL OCCASION	______	______	______	______
j. OTHER GROUP MEETING	______	______	______	______
k. SOCIAL VISITS OR EXTENDED PERSONAL CONVERSATION	______	______	______	______
l. OPEN-DOOR POLICY FOR PARENT VISITS TO CENTER	______	______	______	______

m. OTHER CONTACT, SPECIFY: ______________________________

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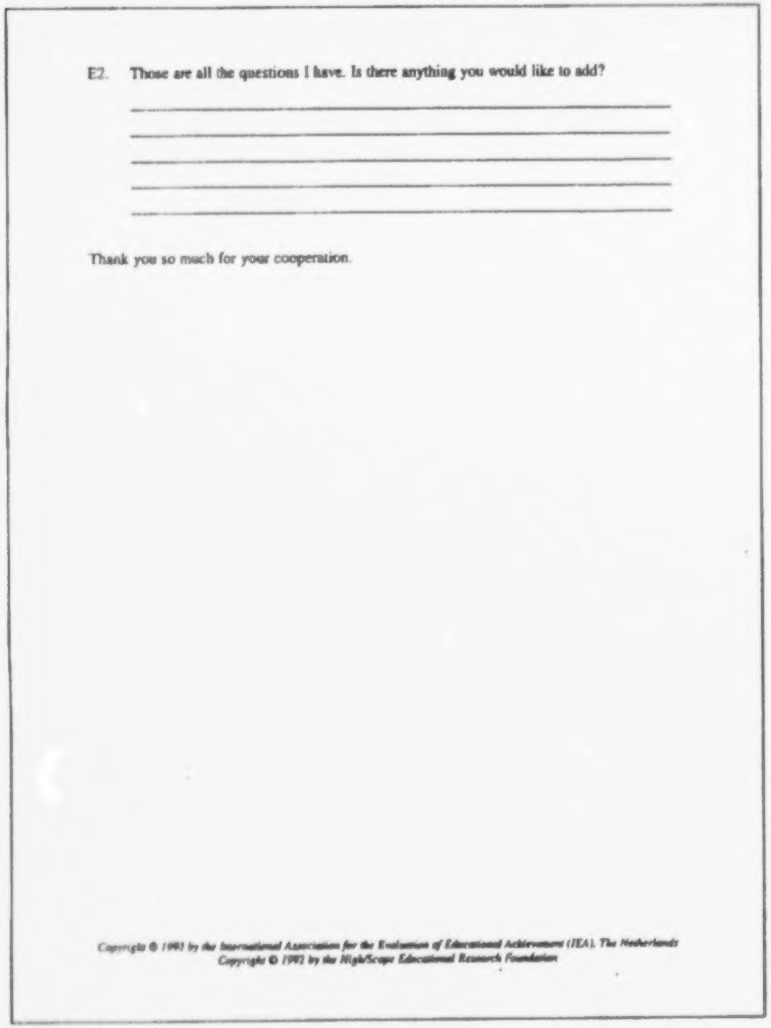

E2. Those are all the questions I have. Is there anything you would like to add?

Thank you so much for your cooperation.

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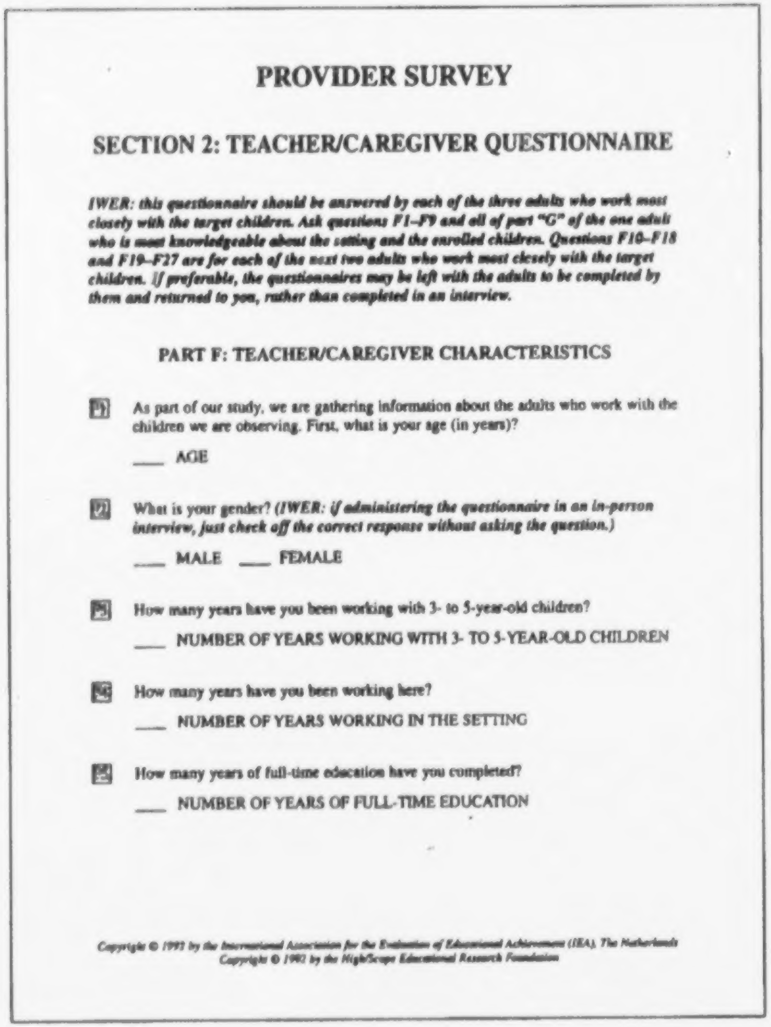

PROVIDER SURVEY

SECTION 2: TEACHER/CAREGIVER QUESTIONNAIRE

IWER: this questionnaire should be answered by each of the three adults who work most closely with the target children. Ask questions F1–F9 and all of part "G" of the one adult who is most knowledgeable about the setting and the enrolled children. Questions F10–F18 and F19–F27 are for each of the next two adults who work most closely with the target children. If preferable, the questionnaires may be left with the adults to be completed by them and returned to you, rather than completed in an interview.

PART F: TEACHER/CAREGIVER CHARACTERISTICS

F1 As part of our study, we are gathering information about the adults who work with the children we are observing. First, what is your age (in years)?

___ AGE

F2 What is your gender? ***(IWER: if administering the questionnaire in an in-person interview, just check off the correct response without asking the question.)***

___ MALE ___ FEMALE

F3 How many years have you been working with 3- to 5-year-old children?

___ NUMBER OF YEARS WORKING WITH 3- TO 5-YEAR-OLD CHILDREN

F4 How many years have you been working here?

___ NUMBER OF YEARS WORKING IN THE SETTING

F5 How many years of full-time education have you completed?

___ NUMBER OF YEARS OF FULL-TIME EDUCATION

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F6 Did you attend a teacher-training program?

1. YES   5. NO → GO TO F7

F6a. At what level of education did you attend the teacher-training program?

___ SECONDARY EDUCATION
___ VOCATIONAL EDUCATION
___ TERTIARY EDUCATION

F6b. How many years of teacher training did you attend?

___ NUMBER OF YEARS OF TEACHER TRAINING

F7 Are you certified or licensed?

1. YES   5. NO → GO TO F8

F7a. Are you certified for preprimary education?

1. YES   5. NO

F7b. Are you certified for primary education?

1. YES   5. NO

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F8. For each of the following, indicate if you have received additional specialized training in that area, and the length of the specialized training:

	BRIEF (1 DAY TO 1 WEEK)	LONG (MORE THAN ONE WEEK)
a. SOCIAL DEVELOPMENT SKILLS	______	______
b. LANGUAGE DEVELOPMENT IN CHILDREN	______	______
c. MOTOR DEVELOPMENT	______	______
d. PSYCHOLOGY OF PRIMARY EDUCATION	______	______
e. COGNITIVE DEVELOPMENT	______	______
f. DEVELOPMENT OF MOTIVATION FOR LEARNING IN PRESCHOOLERS	______	______
g. CREATIVITY IN PRESCHOOLERS	______	______
h. READINESS SKILLS	______	______
i. READING AND WRITING SKILLS	______	______
j. MUSIC AND GAMES FOR PRESCHOOLERS	______	______
k. SCIENCE METHODS	______	______
l. MATHEMATICS METHODS	______	______
m. HEALTH AND SAFETY OF PRESCHOOLERS	______	______
n. ASSESSMENT PROCEDURES FOR PRESCHOOLERS	______	______
o. PLAY AND ITS DEVELOPMENT	______	______

F9. Are special play areas defined (e.g., block corner, nature corner, dress-up corner, etc.) in your classroom?

1. YES   5. NO

IWER: If there is a second adult in the setting who works closely with the target children, ask that adult questions F10–F18.

F10. As part of our study, we are gathering information about the adults who work with the children we are observing. First, what is your age (in years)?

___ AGE

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F11. What is your gender? *(IWER: if administering the questionnaire in an in-person interview, just check off the correct response without asking the question.)*

___ MALE ___ FEMALE

F12. How many years have you been working with 3- to 5-year-old children?

___ NUMBER OF YEARS WORKING WITH 3- TO 5-YEAR-OLD CHILDREN

F13. How many years have you been working here?

___ NUMBER OF YEARS WORKING IN THE SETTING

F14. How many years of full-time education have you completed?

___ NUMBER OF YEARS OF FULL-TIME EDUCATION

F15. Did you attend a teacher-training program?

1. YES   5. NO → GO TO F16

F15a. At what level of education did you attend the teacher-training program?

___ SECONDARY EDUCATION
___ VOCATIONAL EDUCATION
___ TERTIARY EDUCATION

F15b. How many years of teacher training did you attend?

___ NUMBER OF YEARS OF TEACHER TRAINING

F16. Are you certified or licensed?

1. YES   5. NO → GO TO F17

F16a. Are you certified for preprimary education?

1. YES   5. NO

F16b. Are you certified for primary education?

1. YES   5. NO

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F17. For each of the following, indicate if you have received additional specialized training in that area, and the length of the specialized training:

	BRIEF (1 DAY TO 1 WEEK)	LONG (MORE THAN ONE WEEK)
a. SOCIAL DEVELOPMENT SKILLS	____	____
b. LANGUAGE DEVELOPMENT IN CHILDREN	____	____
c. MOTOR DEVELOPMENT	____	____
d. PSYCHOLOGY OF PRIMARY EDUCATION	____	____
e. COGNITIVE DEVELOPMENT	____	____
f. DEVELOPMENT OF MOTIVATION FOR LEARNING IN PRESCHOOLERS	____	____
g. CREATIVITY IN PRESCHOOLERS	____	____
h. READINESS SKILLS	____	____
i. READING AND WRITING SKILLS	____	____
j. MUSIC AND GAMES FOR PRESCHOOLERS	____	____
k. SCIENCE METHODS	____	____
l. MATHEMATICS METHODS	____	____
m. HEALTH AND SAFETY OF PRESCHOOLERS	____	____
n. ASSESSMENT PROCEDURES FOR PRESCHOOLERS	____	____
o. PLAY AND ITS DEVELOPMENT	____	____

F18. Are special play areas defined (e.g., block corner, nature corner, dress-up corner, etc.) in your classroom?

1. YES   5. NO

IWER: if there is a third adult in the setting who works closely with the target children, ask that adult questions F19–F27.

F19. As part of our study, we are gathering information about the adults who work with the children we are observing. First, what is your age (in years)?

___ AGE

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F20. What is your gender? ***(IWER: if administering the questionnaire in an in-person interview, just check off the correct response without asking the question.)***

___ MALE ___ FEMALE

F21. How many years have you been working with 3- to 5-year-old children?

___ NUMBER OF YEARS WORKING WITH 3- TO 5-YEAR-OLD CHILDREN

F22. How many years have you been working here?

___ NUMBER OF YEARS WORKING IN THE SETTING

F23. How many years of full-time education have you completed?

___ NUMBER OF YEARS OF FULL-TIME EDUCATION

F24. Did you attend a teacher-training program?

1. YES   5. NO → GO TO F25

F24a. At what level of education did you attend the teacher-training program?

___ SECONDARY EDUCATION
___ VOCATIONAL EDUCATION
___ TERTIARY EDUCATION

F24b. How many years of teacher training did you attend?

___ NUMBER OF YEARS OF TEACHER TRAINING

F25. Are you certified or licensed?

1. YES   5. NO → GO TO F26

F25a. Are you certified for preprimary education?

1. YES   5. NO

F25b. Are you certified for primary education?

1. YES   5. NO

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F26. For each of the following, indicate if you have received additional specialized training in that area, and the length of the specialized training:

	BRIEF (1 DAY TO 1 WEEK)	LONG (MORE THAN ONE WEEK)
a. SOCIAL DEVELOPMENT SKILLS	___	___
b. LANGUAGE DEVELOPMENT IN CHILDREN	___	___
c. MOTOR DEVELOPMENT	___	___
d. PSYCHOLOGY OF PRIMARY EDUCATION	___	___
e. COGNITIVE DEVELOPMENT	___	___
f. DEVELOPMENT OF MOTIVATION FOR LEARNING IN PRESCHOOLERS	___	___
g. CREATIVITY IN PRESCHOOLERS	___	___
h. READINESS SKILLS	___	___
i. READING AND WRITING SKILLS	___	___
j. MUSIC AND GAMES FOR PRESCHOOLERS	___	___
k. SCIENCE METHODS	___	___
l. MATHEMATICS METHODS	___	___
m. HEALTH AND SAFETY OF PRESCHOOLERS	___	___
n. ASSESSMENT PROCEDURES FOR PRESCHOOLERS	___	___
o. PLAY AND ITS DEVELOPMENT	___	___

F27. Are special play areas defined (e.g., block corner, nature corner, dress-up corner, etc.) in your classroom?

1. YES   5. NO

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PART G: ENROLLMENT

CHARACTERISTICS OF ENROLLED CHILDREN

Now I would like to get some information about the children who attend your setting, and about the children who are in each target child's group.

G1. First, what is the age-range of the children?

G2. How many boys?

G3. How many girls?

IWER instruction: ask the above questions about the total group of children and about each group that contains one or more target children. Complete the following chart using r's responses.

	TOTAL GROUP OF CHILDREN	GROUP FOR TARGET CHILD #1	GROUP FOR TARGET CHILD #2	GROUP FOR TARGET CHILD #3	GROUP FOR TARGET CHILD #4
AGE-RANGE	___	___	___	___	___
NUMBER OF BOYS	___	___	___	___	___
NUMBERS OF GIRLS	___	___	___	___	___

ADULT-CHILD RATIO

G4. How many children are in (NAME OF CHILD #1)'s group?

___ NUMBER OF CHILDREN IN (NAME OF CHILD #1)'S GROUP

G4a. If (NAME OF CHILD #2), (NAME OF CHILD #3), and (NAME OF CHILD #4) are in a different group from (CHILD #1), or are in different groups from each other, how many children are in each of those groups?

___ NUMBER OF CHILDREN IN (NAME OF CHILD #2)'S GROUP
___ NUMBER OF CHILDREN IN (NAME OF CHILD #3)'S GROUP
___ NUMBER OF CHILDREN IN (NAME OF CHILD #4)'S GROUP

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G4b. How many staff members attend to the children in each of these groups?

___ NUMBER OF TEACHERS/CAREGIVERS IN (NAME OF CHILD #1)'S GROUP
___ NUMBER OF TEACHERS/CAREGIVERS IN (NAME OF CHILD #2)'S GROUP
___ NUMBER OF TEACHERS/CAREGIVERS IN (NAME OF CHILD #3)'S GROUP
___ NUMBER OF TEACHERS/CAREGIVERS IN (NAME OF CHILD #4)'S GROUP

G5. Those are all the questions I have. Is there anything you would like to add?

____
____
____
____
____

Thank you so much for your cooperation.

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PROVIDER SURVEY

SECTION 3

PART H: MATERIALS AND EQUIPMENT

[NRCs CAN ELECT TO INCLUDE THIS SECTION IN EITHER THE DIRECTOR QUESTIONNAIRE OR THE TEACHER/CAREGIVER QUESTIONNAIRE.]

H1. Are materials and equipment generally accessible to the children?

1. YES   5. NO

H2. Following is a list of specific materials and equipment which are frequently available in preprimary programs. For each item, please indicate if it is present in your setting, if it is available to children, and if it is used daily, weekly, or less than weekly. [NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]

	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
Gross-Motor Materials					
SLIDES					
CLIMBERS					
SWING SETS					
SCOOTERS					
PEDAL CARS					
BICYCLES					
TRICYCLES					
BASKETBALLS					
BASKETBALL HOOPS					
TREE HOUSE					
JUNGLE GYMS					
LADDERS					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
CLIMBING ROPES					
BALANCE BEAMS					
BOUNCING BOARDS					
WAGONS					
ROLLER SKATES					
JUMP ROPES					
BALLS					
LARGE CONSTRUCTION TOYS					
BEANBAGS					
BATS/STICKS/ RACQUETS					
HULA-HOOPS					
POOLS/SPRINKLERS					
ROCKERS					
PULL TOYS					
PARACHUTES					
JUMPERS					
GYM MATS					
LARGE TRUCKS TO RIDE OR PUSH					
SLEDS					
Fine-Motor Materials					
WATER TABLE, WATER TOYS					
SANDBOX/TABLE, SAND TOYS					
PLAY DOUGH					
PUZZLES/PUZZLE TABLE					
SMALL CONSTRUCTION TOYS					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
SMALL TOYS WITH WHEELS					
CHILD-SIZED CARPENTRY TOOLS					
SEWING/LACING CARDS					
WEAVING MATERIALS					
BEADS					
PEGBOARDS					
SHAPE SORTERS/TOYS					
COLOR GAMES/TOYS					
NUMBER GAMES/TOYS					
STACKING/SORTING TOYS					
Dramatic Play Materials					
DOLLHOUSES					
DOLLHOUSE EQUIPMENT					
DOLLS/ETHNIC DOLLS					
TOY VILLAGES					
TOY FARMS					
TOY GAS STATION					
TOY AIRPORT					
DRESS-UP CLOTHES					
PLAY PROPS (BROOMS, DUSTPANS, FOOD, HOUSEHOLD UTENSILS)					
PLAY PEOPLE					
TOY WORKBENCH					
PUPPETS					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
PLAYHOUSE					
CHILD-SIZED PLAY FURNITURE					
Art/Craft Materials					
PENCILS, PENS					
CHALK					
CRAYONS					
WATERCOLOR PAINTS					
FINGER PAINTS					
TEMPERA PAINTS					
OTHER PAINTS					
PAINTBRUSHES (DIFFERENT SIZES)					
PAPER (DIFFERENT KINDS)					
SCISSORS					
CLAY					
GLUE/PASTE					
STARCH					
CHALKBOARDS					
EASELS					
OTHER MATERIALS CHILD MIGHT USE FOR ART PROJECT					
Music-Related Materials					
REAL INSTRUMENTS					
TOY INSTRUMENTS					
SONGS/SONG BOOKS					
TAPES/RECORDS					
RHYTHM INSTRUMENTS					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
Science/Nature Materials					
ROCKS					
FEATHERS					
BONES					
FURS					
PLANTS					
SHELLS					
LEATHER					
ANIMALS TO HOLD					
ANIMALS TO OBSERVE					
PRISMS					
MAGNIFYING GLASSES					
AQUARIUM					
Reading Materials (except music)					
BOOKS					
WORKBOOKS					
DITTOS					
MAGAZINES					
NEWSPAPERS					
LETTER GAMES/TOYS					
COMIC BOOKS					
CARD GAMES					
BOARD GAMES					
Audiovisual Aids					
TELEVISION					
RADIO					
PROJECTOR					
PROJECTION SCREEN					
VIDEOCASSETTE RECORDER					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
VIDEOCASSETTE PLAYER					
FILMS/FILMSTRIPS					
VIDEOS					
RECORD PLAYER					
TAPE RECORDER					
COMPUTERS/ MICRO-COMPUTERS					

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APPENDIX B

NON-GROUP/SMALL-GROUP SETTING PROVIDER SURVEY QUESTIONNAIRE

IEA/PPP/70a
Revised April 1997

PROVIDER SURVEY QUESTIONNAIRE

NON-GROUP/
SMALL-GROUP SETTING

IEA PREPRIMARY PROJECT
PHASE 2

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PROVIDER SURVEY QUESTIONNAIRE

NON-GROUP/SMALL-GROUP SETTING

QUALITY OF LIFE STUDY

Country Code: ____________ Site ID #: ____________
Setting ID #: ____________ Type of Setting: ____________
Name of Setting: ____________
Address of Setting: ____________
____
Telephone Number of Setting: ____________
First Child's ID #: ____________ Sex: ______ Ethnicity: ______
First Child's Name: ____________ Date of Birth: ______
First Child's Address: ____________
First Child's Telephone Number: ____________
ID # of Teacher/Caregiver: ____________ Sex: ______
Teacher/Caregiver's Full Name: ____________
Teacher/Caregiver's Address: ____________
Teacher/Caregiver's Telephone Number: ____________
Date of Interview: ____________
Name of Interviewer: ____________ Interviewer ID#: ____________

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PART A: INTRODUCTORY QUESTIONS

A1. Do you care for the child in his/her own home or in your home?

___ a. CHILD CARED FOR IN OWN HOME
___ b. CHILD CARED FOR IN CAREGIVER'S HOME

A2 Are you related to the child (e.g., grandparent)?

1. YES — 5. NO → GO TO A3

A2a What is your relationship to the child?

___ GRANDPARENT
___ AUNT/UNCLE
___ OTHER RELATIVE, SPECIFY: ______________________

A3 Do you care for more than one child at a time?

1. YES — 5. NO → GO TO B1

A3a How many children do you care for at a time?

___ TOTAL NUMBER OF CHILDREN CARED FOR AT A TIME

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PART B: PHYSICAL DESCRIPTION OF THE SETTING

Now, I would like some information regarding the physical arrangement of the home where the child is cared for.

B1 What is the approximate size of the home?

___ SQUARE FEET/METERS (circle one)

B2 Excluding the toilets, bathrooms, and kitchen, how many rooms are available for use by the child? How many of the available rooms does the child actually use on a regular basis?

___ NUMBER OF ROOMS AVAILABLE FOR USE BY CHILD
___ NUMBER OF ROOMS ACTUALLY USED BY CHILD

B2a What is the approximate area of the available rooms and of the room used most frequently by the child? (INDICATE SQUARE FEET OR SQUARE METERS)

___ COMBINED APPROXIMATE AREA OF AVAILABLE ROOMS
___ APPROXIMATE AREA OF MOST FREQUENTLY USED ROOM

B3 Is the setting furnished and/or structured for use by the child?

1. YES — 5. NO → GO TO B4

B3a In what ways is the setting furnished/structured for use by the child?

___ a. CHILD-SIZED FURNITURE
___ b. SHELVES LOW ENOUGH FOR CHILD TO REACH SAFELY
___ c. BOOKS/TOYS/EQUIPMENT APPROPRIATE FOR CHILD
___ d. OTHER, SPECIFY: ______________________

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Note: Shading indicates data analyzed for inclusion in this monograph.

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B4. Which of the following does the home have? (Check NO or YES)

[NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]

	YES	NO
FIRE ALARM SYSTEM (ELECTRIC)	____	____
FIRE ALARM SYSTEM (MANUAL)	____	____
FIRE EXTINGUISHER(S)	____	____
KITCHEN	____	____
WASHBASINS	____	____
RUNNING WATER/TAP WATER	____	____
FLUSH TOILET FACILITIES (INDOOR)	____	____
BATH OR SHOWER	____	____
WORKING TELEPHONE	____	____
WORKING WASHING MACHINE	____	____
WORKING CLOTHES DRYER	____	____
WORKING REFRIGERATOR	____	____
ELECTRICITY/SOME TYPE OF LIGHTING SYSTEM	____	____
FAN	____	____
AIR CONDITIONER OR OTHER TYPE OF COOLING SYSTEM	____	____
HEATING SYSTEM	____	____
FIRST-AID SUPPLIES	____	____
CAR IN WORKING ORDER	____	____
BICYCLE IN WORKING ORDER	____	____
MOTOR SCOOTER IN WORKING ORDER	____	____
MOTORCYCLE IN WORKING ORDER	____	____

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B5. Does the home have an outdoor play area?

1. YES ↓ 5. NO → GO TO B6

B5a. Is it on the property?

1. YES → GO TO B5d 5. NO ↓

B5b. Is it within walking distance?

1. YES ↓ 5. NO → GO TO B5d

B5c. How far is the play area from the home?

____ DISTANCE OF PLAY AREA FROM HOME
(INDICATE KILOMETERS OR MILES)

B5d. How would you describe the outdoor play area?

____ a. LAWN/YARD
____ b. SPORTS FIELD
____ c. PARK/PLAYGROUND
____ d. OTHER, SPECIFY: ____________________

B5e. What is the approximate size of the play area?

____ SQUARE FEET/METERS (circle one)

B5f. Does the play area have a roof?

1. YES 5. NO

B6. Is there an indoor play area for the child to use?

1. YES ↓ 5. NO → GO TO C1

B6a. What is the approximate size of the indoor play area?

____ SQUARE FEET/METERS (circle one)

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PART C: MANAGEMENT

FINANCIAL ASSISTANCE/FEES

C1 Are you paid to care for the child?

1. YES ↓ 5. NO → GO TO C3

C2 Do the child's parents receive financial assistance to pay for you to care for the child?

1. YES ↓ 5. NO → GO TO C3

C2a From what sources do the parents receive this assistance?

___ COMMUNITY AGENCY
___ CHURCH/RELIGIOUS GROUP
___ WELFARE DEPARTMENT
___ PRIVATE EMPLOYER/COMPANY
___ SCHOOL/UNIVERSITY
___ HOSPITAL
___ OTHER COMMUNITY SOURCES, SPECIFY: ______________
___ OTHER, SPECIFY: ______________

MEALS/TRANSPORTATION

C3. Do you provide meals or snacks for the child?

1. YES ↓ 5. NO → GO TO C4

C3a. Which meals or snacks?

___ a. BREAKFAST
___ b. LUNCH
___ c. DINNER
___ d. MORNING SNACK
___ e. AFTERNOON SNACK
___ f. BEDTIME SNACK

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C3b. Does the parent pay extra for these meals?

1. YES ↓ 5. NO → GO TO C4

C4. If you care for the child in your own home, do you provide transportation to and from your home?

1. YES ↓ 5. NO → GO TO C5

C4a. Does the parent pay extra for transportation?

1. YES ↓ 5. NO → GO TO C5

C4b. How much extra does the parent pay?

______	______	______
AMOUNT	MONETARY UNIT	PER MONTH

LICENSING

C5 Are you presently licensed by law to care for preschool children?

1. YES ↓ 2. IN PROCESS 3. NO LICENSING REQUIRED 5. NO → GO TO C6

C5a Who are you licensed by?

	NAME OF LICENSING BODY
___ EDUCATIONAL DEPARTMENT	______
___ HEALTH DEPARTMENT	______
___ SOCIAL WELFARE/SOCIAL SERVICES DEPT.	______
___ PRIVATE ORGANIZATION/FOUNDATION	______
___ OTHER, SPECIFY:	______

C5b How many children, and what age-range of children, are you licensed/registered or certified to care for?

___ NUMBER OF CHILDREN
___ AGE-RANGE OF CHILDREN

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C5c Now I will read you a list of criteria licensing authorities consider before a license is issued to a caregiver. Please tell me the criteria which facilitated licensing of this caregiver program. **[NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]**

___ a. AVAILABILITY OF PHYSICAL SPACE AND FACILITIES
___ b. AMOUNT AND NATURE OF EQUIPMENT
___ c. CAREGIVER CHARACTERISTICS
___ d. STAFFING
___ e. FOOD PROGRAM
___ f. HEALTH REGULATIONS
___ g. FIRE REGULATIONS
___ h. SAFETY REGULATIONS
___ i. OTHER, SPECIFY: ____________________

C5d Is the licensing reviewed?

1. YES ↓ 5. NO → GO TO C6

C5e How often?_______

C5f Is there any supervision of the program by the licensing body?

1. YES ↓ 5. NO → GO TO C6

C5g How often?_______

C5h. What type of supervision? ____________________

C6 If you care for more than one child, do you maintain and update records for any of the following?

___ a. BACKGROUND INFORMATION FOR EACH CHILD
___ b. ATTENDANCE RECORDS
___ c. MEDICAL RECORDS
___ d. EVALUATIONS/TESTS
___ e. OTHER, SPECIFY: ____________________

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PART D: PATTERNS OF CARE

D1 How many weeks per year are services available at this setting?

___ WEEKS

D2 What days of the week do you typically care for the target child?
(IWER: in the spaces provided in the chart below, check all days of week target child is cared for by caregiver.)

D3 Please tell me what time you begin care and end care for the target child?
(IWER: in the spaces provided in the chart below, fill in the beginning and ending times that the child is cared for each day.)

D4 Typically, how many hours does the target child spend with you each day?
(IWER: use the column provided in the chart below to record the number of hours child spends with the caregiver each day.)

D2. DAY OF WEEK		D3. HOURS OF DAY	D4. TIME IN SETTING
a. MONDAY	_____	__AM PM TO __AM PM	_________
b. TUESDAY	_____	__AM PM TO __AM PM	_________
c. WEDNESDAY	_____	__AM PM TO __AM PM	_________
d. THURSDAY	_____	__AM PM TO __AM PM	_________
e. FRIDAY	_____	__AM PM TO __AM PM	_________
f. SATURDAY	_____	__AM PM TO __AM PM	_________
g. SUNDAY	_____	__AM PM TO __AM PM	_________

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PART E: CAREGIVER CHARACTERISTICS

E1. As part of our study, we are gathering information about the adults who care for the children we are observing. First, what is your age (in years)?

___ AGE

E2. What is your gender? *(IWER: if administering the questionnaire in an in-person interview, just check off the correct response without asking the question.)*

___ FEMALE ___ MALE

E3. How long have you cared for the target child?

___ LENGTH OF TIME CAREGIVER HAS CARED FOR CHILD

E4. Have you cared for other 3- to 5-year-old children?

☐ 1. YES ☐ 5. NO → GO TO E5

↓

E4a. How many years experience do you have in caring for 3- to 5-year-old children?

___ NUMBER OF YEARS WORKING WITH 3- TO 5-YEAR-OLD CHILDREN

E5. How many years of full-time education have you completed?

___ NUMBER OF YEARS OF FULL-TIME EDUCATION

E6. Have you attended a teacher-training program?

☐ 1. YES ☐ 5. NO → GO TO E7

↓

E6a. At what level of education did you attend the teacher-training program?

___ SECONDARY EDUCATION
___ VOCATIONAL EDUCATION
___ TERTIARY EDUCATION

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E6b. How many years of teacher training did you attend?

___ NUMBER OF YEARS OF TEACHER TRAINING

E7. Are you certified for preprimary education?

☐ 1. YES ☐ 5. NO

E8. Are you certified for primary education?

☐ 1. YES ☐ 5. NO

E9. For each of the following, indicate if you have received specialized training in that area, and the length of the specialized training:

	BRIEF (1 DAY TO 1 WEEK)	LONG (MORE THAN ONE WEEK)
a. SOCIAL DEVELOPMENT SKILLS	___	___
b. LANGUAGE DEVELOPMENT IN CHILDREN	___	___
c. MOTOR DEVELOPMENT	___	___
d. PSYCHOLOGY OF PRIMARY EDUCATION	___	___
e. COGNITIVE DEVELOPMENT	___	___
f. DEVELOPMENT OF MOTIVATION FOR LEARNING IN PRESCHOOLERS	___	___
g. CREATIVITY IN PRESCHOOLERS	___	___
h. READINESS SKILLS	___	___
i. READING AND WRITING SKILLS	___	___
j. MUSIC AND GAMES FOR PRESCHOOLERS	___	___
k. SCIENCE METHODS	___	___
l. MATHEMATICS METHODS	___	___
m. HEALTH AND SAFETY OF PRESCHOOLERS	___	___
n. ASSESSMENT PROCEDURES FOR PRESCHOOLERS	___	___
o. PLAY AND ITS DEVELOPMENT	___	___

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E10. Do you attend any in-service training programs to improve your caregiving skills?

1. YES 5. NO

E11. Are special play areas defined in the home for the child to use (e.g. block corner, nature corner, dress-up corner, etc.)?

1. YES 5. NO

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PART F: ENROLLMENT

CHARACTERISTICS OF ENROLLED CHILDREN

F1. ***Interviewer Checkpoint***

☐ 1. CAREGIVER CARES FOR MORE THAN ONE CHILD → GO TO F2
☐ 2. ALL OTHERS → GO TO G1

Now I would like to ask you some questions about the children you provide care for.

▨ First, what is the age-range of the children you care for?

___ AGE-RANGE OF CHILDREN

▨ How many boys and how many girls do you care for?

___ NUMBER OF BOYS
___ NUMBER OF GIRLS

▨ Do you have any other caregivers helping you provide care for the children?

1. YES 5. NO → GO TO G1

▨ How many individuals provide care for the children besides you?

___ NUMBER OF OTHER CAREGIVERS

▨ If you have other adults helping you care for the children, what is the adult-child ratio for your setting?

___ ADULT-CHILD RATIO

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PART G: PARENT-CAREGIVER CONTACT

G1 I am going to read you a list of different types of contact which may sometimes occur between parents and caregivers. For each one, please tell me how many times, on average, that type of contact has occurred with the target child's parents within the last six months. (IF NO CONTACT OF A CERTAIN TYPE HAS OCCURRED DURING THE LAST SIX MONTHS, MARK 0 IN THE SPACE PROVIDED FOR THAT TYPE OF CONTACT.)

TYPE OF CONTACT	NUMBER OF TIMES CONTACT HAS OCCURRED IN LAST SIX MONTHS
a. NOTES OR PHONE CALLS TO PARENTS	______
b. MEETINGS WITH PARENTS	______
c. PARENT VOLUNTEERING FOR SPECIAL OCCASION	______
d. SOCIAL VISITS OR EXTENDED PERSONAL CONVERSATION	______
e. HOME VISITS WITH PARENTS	______
f. PARENT ASSISTANCE WITH CAREGIVING	______

g. OTHER CONTACT, SPECIFY: ______________________________

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PART H: AVAILABILITY OF ANCILLARY SERVICES AND OUTSIDE RESOURCES

H1 I am going to read a list of services. For each one, please tell me whether that service is directly available from you, available by referral, or not available.

	DIRECTLY AVAILABLE	AVAILABLE BY REFERRAL	NOT AVAILABLE
a. DEVELOPMENTAL ASSESSMENT	______	______	______
b. EDUCATIONAL EVALUATION OF CHILD	______	______	______
c. PREVENTIVE/REMEDIAL HEALTH SERVICES	______	______	______
d. VISION TESTING	______	______	______
e. HEARING TESTING	______	______	______
f. SPECIAL EDUCATION	______	______	______

g. OTHER SERVICE, SPECIFY TYPE: ______________________________

h. OTHER SERVICE, SPECIFY TYPE: ______________________________

H2 Do you use any outside resources to enhance the program you provide? (For example, do you invite resource people, such as community helpers, to come to your setting to talk to the children, take field trips to farms, police stations, etc.?)

☐ 1. YES ☐ 5. NO → GO TO J1

↓

H2a Which resources do you use?

- ___ a. TEACHERS WITH SPECIALIZED TRAINING (E.G., ART, MUSIC, MOVEMENT, DANCE)
- ___ b. LIBRARIAN
- ___ c. LOCAL FIELD TRIPS (HOW OFTEN?_______)
- ___ d. COMMUNITY HELPERS (POLICE, FIREFIGHTER, ETC.)
- ___ e. OTHER, SPECIFY: ______________________________

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PART J: MATERIALS AND EQUIPMENT

J1 Are materials and equipment generally accessible to the children?

☐ 1. YES ☐ 5. NO

J2 Following is a list of specific materials and equipment that are frequently available in programs for 3- to 5-year-old children. For each item, please indicate if it is present in your setting, if it is available to children, and if it is used daily, weekly, or less than weekly. [NRCs CAN SELECT COUNTRY-APPROPRIATE ITEMS FROM THIS LISTING.]

	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
Gross Motor Materials					
SLIDES	____	____	____	____	____
CLIMBERS	____	____	____	____	____
SWING SETS	____	____	____	____	____
SCOOTERS	____	____	____	____	____
PEDAL CARS	____	____	____	____	____
BICYCLES	____	____	____	____	____
TRICYCLES	____	____	____	____	____
BASKETBALLS	____	____	____	____	____
BASKETBALL HOOPS	____	____	____	____	____
TREEHOUSE	____	____	____	____	____
JUNGLE GYMS	____	____	____	____	____
LADDERS	____	____	____	____	____
CLIMBING ROPES	____	____	____	____	____
BALANCE BEAMS	____	____	____	____	____
BOUNCING BOARDS	____	____	____	____	____
WAGONS	____	____	____	____	____
ROLLER SKATES	____	____	____	____	____
JUMP ROPES	____	____	____	____	____
BALLS	____	____	____	____	____

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
LARGE CONSTRUCTION TOYS	____	____	____	____	____
BEANBAGS	____	____	____	____	____
BATS/STICKS/ RACQUETS	____	____	____	____	____
HULA-HOOPS	____	____	____	____	____
POOLS/SPRINKLERS	____	____	____	____	____
ROCKERS	____	____	____	____	____
PULL TOYS	____	____	____	____	____
PARACHUTES	____	____	____	____	____
JUMPERS	____	____	____	____	____
GYM MATS	____	____	____	____	____
LARGE TRUCKS TO RIDE OR PUSH	____	____	____	____	____
SLEDS	____	____	____	____	____
Fine-Motor Materials					
WATER TABLE, WATER TOYS	____	____	____	____	____
SANDBOX/TABLE, SAND TOYS	____	____	____	____	____
PLAY DOUGH	____	____	____	____	____
PUZZLES/PUZZLE TABLE	____	____	____	____	____
SMALL CONSTRUCTION TOYS	____	____	____	____	____
SMALL TOYS WITH WHEELS	____	____	____	____	____
CHILD-SIZED CARPENTRY TOOLS	____	____	____	____	____
SEWING/LACING CARDS	____	____	____	____	____
WEAVING MATERIALS	____	____	____	____	____
BEADS	____	____	____	____	____

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
PEGBOARDS					
SHAPE SORTERS/TOYS					
COLOR GAMES/TOYS					
NUMBER GAMES/TOYS					
STACKING/SORTING TOYS					
Dramatic Play Materials					
DOLLHOUSES					
DOLLHOUSE EQUIPMENT					
DOLLS/ETHNIC DOLLS					
TOY VILLAGES					
TOY FARMS					
TOY GAS STATION					
TOY AIRPORT					
DRESS-UP CLOTHES					
PLAY PROPS (BROOMS, DUST PANS, FOOD, HOUSEHOLD UTENSILS)					
PLAY PEOPLE					
TOY WORKBENCH					
PUPPETS					
PLAYHOUSE					
CHILD-SIZED PLAY FURNITURE					
Art/Craft Materials					
PENCILS, PENS					
CHALK					
CRAYONS					
WATERCOLOR PAINTS					
FINGER PAINTS					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
TEMPERA PAINTS					
OTHER PAINTS					
PAINTBRUSHES (DIFFERENT SIZES)					
PAPER (DIFFERENT KINDS)					
SCISSORS					
CLAY					
GLUE/PASTE					
STARCH					
CHALKBOARDS					
EASELS					
OTHER MATERIALS CHILD MIGHT USE FOR ART PROJECT					
Music-Related Materials					
REAL INSTRUMENTS					
TOY INSTRUMENTS					
SONGS/SONG BOOKS					
TAPES/RECORDS					
RHYTHM INSTRUMENTS					
Science/Nature Materials					
ROCKS					
FEATHERS					
BONES					
FUR					
PLANTS					
SHELLS					
LEATHER					
ANIMALS TO HOLD					

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	PRESENT IN SETTING	AVAILABLE TO CHILDREN	USED DAILY	USED WEEKLY	USED LESS THAN WEEKLY
ANIMALS TO OBSERVE	______	______	______	______	______
PRISMS	______	______	______	______	______
MAGNIFYING GLASSES	______	______	______	______	______
AQUARIUM	______	______	______	______	______
Reading Materials (except music)					
BOOKS	______	______	______	______	______
WORKBOOKS	______	______	______	______	______
DITTOS	______	______	______	______	______
MAGAZINES	______	______	______	______	______
NEWSPAPERS	______	______	______	______	______
LETTER GAMES/TOYS	______	______	______	______	______
COMIC BOOKS	______	______	______	______	______
CARD GAMES	______	______	______	______	______
BOARD GAMES	______	______	______	______	______
Audiovisual Aids					
TELEVISION	______	______	______	______	______
RADIO	______	______	______	______	______
PROJECTOR	______	______	______	______	______
PROJECTION SCREEN	______	______	______	______	______
VIDEOCASSETTE RECORDER	______	______	______	______	______
VIDEOCASSETTE PLAYER	______	______	______	______	______
FILMS/FILMSTRIPS	______	______	______	______	______
VIDEOS	______	______	______	______	______
RECORD PLAYER	______	______	______	______	______
TAPE RECORDER	______	______	______	______	______
COMPUTERS/ MICROCOMPUTERS	______	______	______	______	______

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J3. Those are all the questions I have. Is there anything you would like to add?

____
____
____
____
____

Thank you so much for your cooperation.

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APPENDIX C
SUPPLEMENTARY TABLES FOR CHAPTER 5

Table C.1 Percentage of settings using various admissions criteria

		Criteria for Selection of Children							
Country/Territory	*N*	Age	Cares for Self	Special Needs	Income	Speaks/ Understands Dominant Language	Develop-mental Skills Tests	Readiness Tests	Other
Belgium (Fr.—Liège Province, Brussels)									
Public nursery schools	28	100	4	8	NA	4	0	NA	24
Private nursery schools	27	100	4	19	NA	8	0	NA	17
China (PRC, 6 provinces)									
Urban kindergartens	216	89	36	47	0	0	NA	18	9
Rural kindergartens	191	93	53	34	0	0	NA	19	5
Finland									
Child care centers	66	95	3	87	7	16	16	5	33
Greece (urban)									
Public kindergartens*	49	100	0	5	0	0	5	0	0
Child care centers	22	91	57	26	13	22	17	4	13
Hong Kong (SAR)									
Kindergartens	26	100	58	17	0	0	21	29	13
Child care centers	25	100	42	54	0	0	17	13	29
Indonesia (Java)									
Urban kindergartens	39	97	14	8	0	60	19	19	6
Rural kindergartens	28	85	4	8	0	31	12	8	16
Ireland									
Nondisadvantaged preschools	25	100	52	17	0	9	4	4	0
Disadvantaged preschools	29	100	54	52	0	9	14	5	27
Disadvantaged national schools	27	81	35	35	0	27	4	4	12
Nondisadvantaged national schools	28	96	50	38	0	36	5	5	10
Italy									
Preprimary schools	143	100	19	30	NA	17	4	3	37
Nigeria (3 states)									
Urban group settings	48	86	48	31	0	24	32	26	0
Rural group settings	19	78	50	28	0	22	22	28	13
Poland									
Urban preschools	75	94	23	28	22	9	4	4	23
Rural preschools	49	94	28	44	13	7	2	4	15
Romania									
Urban normal-day kindergartens	24	100	0	100	0	0	0	0	0
Rural normal-day kindergartens	21	100	0	95	0	0	0	0	0
Urban long-day kindergartens	24	100	0	88	0	0	0	0	0
Slovenia									
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)									
Public kindergartens	29	73	12	27	0	8	4	0	19
Private kindergartens	25	77	18	14	0	9	9	5	0
Thailand									
Educational programs	31	100	45	10	3	32	39	42	3
Child care centers	22	96	59	5	5	9	5	23	5
United States (6 sites)									
Head Start centers*	31	100	46	91	78	9	27	0	86
Public school preschools	24	100	57	67	68	5	29	0	83
Other organized programs*	45	100	35	46	50	7	10	10	50

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NA = Not asked. NI indicates no information available.

Table C.2 Percentage of settings maintaining various types of records

Country/Territory	*N*	Background Information	Attendance Records	Medical Records	Evaluations	Develop-mental Tests	Behavior Observations
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28	75	96	54	61	68	NI
Private nursery schools	27	93	86	57	36	29	NI
China (PRC, 6 provinces)							
Urban kindergartens	216	80	97	83	38	81	NI
Rural kindergartens	191	65	87	45	37	46	NI
Finland							
Child care centers	66	98	98	62	41	51	NI
Greece (urban)							
Public kindergartens*	49	88	9	18	3	6	0
Child care centers	22	91	83	78	22	30	0
Hong Kong (SAR)							
Kindergartens	26	88	92	33	88	33	0
Child care centers	25	96	100	100	71	54	0
Indonesia (Java)							
Urban kindergartens	39	100	100	86	92	69	NI
Rural kindergartens	28	85	89	74	77	56	NI
Ireland							
Nondisadvantaged preschools	25	94	100	65	12	12	0
Disadvantaged preschools	29	58	100	58	33	0	0
Disadvantaged national schools	27	95	100	38	86	71	0
Nondisadvantaged national schools	28	89	100	50	94	89	0
Italy							
Preprimary schools	143	77	99	86	80	23	NI
Nigeria (3 states)							
Urban group settings	48	81	97	47	85	55	NI
Rural group settings	19	82	94	25	71	44	NI
Poland							
Urban preschools	75	86	100	90	31	51	31
Rural preschools	49	83	100	94	30	44	41
Romania							
Urban normal-day kindergartens	24	100	96	8	100	4	100
Rural normal-day kindergartens	21	100	100	5	100	0	95
Urban long-day kindergartens	24	100	100	100	100	54	92
Slovenia							
Kindergartens*	44	NI	NI	NI	NI	NI	NI
Spain (Catalonia)							
Public kindergartens	29	100	95	91	100	86	100
Private kindergartens	25	100	91	81	100	67	100
Thailand							
Educational programs	31	86	100	93	93	93	93
Child care centers	22	NI	NI	NI	NI	NI	NI
United States (6 sites)							
Head Start centers*	31	100	100	100	100	100	NI
Public school preschools	24	100	100	100	100	100	NI
Other organized programs*	45	100	100	100	100	NI	NI

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Table C.3 Percentage of early childhood settings charging varying fees for different reasons

Country/Territory	*N*	*N* Charging Fees	Reasons: 2 or More Children	Family Income	Mother Works at Setting	Age of Child	Not Toilet Trained	Special Needs
Belgium (Fr.—Liège Province, Brussels)								
Public nursery schools	28	0	NA	NA	NA	NA	NA	NA
Private nursery schools	27	0	NA	NA	NA	NA	NA	NA
China (PRC, 6 provinces)								
Urban kindergartens	216	196	0	0	29	24	0	2
Rural kindergartens	191	177	0	0	24	23	0	11
Finland								
Child care centers	66	59	100	88	2	95	2	2
Greece (urban)								
Public kindergartens*	49	37	NI	NI	NI	NI	NI	NI
Child care centers	22	22	30	4	17	13	9	0
Hong Kong (SAR)								
Kindergartens	26	24	5	5	57	0	10	24
Child care centers	25	23	0	30	25	0	0	0
Indonesia (Java)								
Urban kindergartens	39	35	40	46	31	9	6	9
Rural kindergartens	28	15	13	33	20	13	0	0
Ireland								
Nondisadvantaged preschools	25	22	73	5	27	0	0	0
Disadvantaged preschools	29	21	48	14	19	0	0	0
Disadvantaged national schools	27	1	NA	NA	NA	NA	NA	NA
Nondisadvantaged national schools	28	1	NA	NA	NA	NA	NA	NA
Italy								
Preprimary schools	143	9	NA	NA	NA	NA	NA	NA
Nigeria (3 states)								
Urban group settings	48	44	20	0	27	20	2	5
Rural group settings	19	16	0	0	19	13	0	6
Poland								
Urban preschools	75	70	34	0	3	7	1	1
Rural preschools	49	42	17	0	0	10	0	0
Romania								
Urban normal-day kindergartens	24	NI	NI	NI	NI	NI	NI	NI
Rural normal-day kindergartens	21	NI	NI	NI	NI	NI	NI	NI
Urban long-day kindergartens	24	24	100	100	0	0	0	0
Slovenia								
Kindergartens*	44	NI	NI	NI	NI	NI	NI	NI
Spain (Catalonia)								
Public kindergartens	29	0	NA	NA	NA	NA	NA	NA
Private kindergartens	25	22	41	14	55	5	5	5
Thailand								
Educational programs	31	21	29	5	24	19	0	5
Child care centers	22	19	5	5	0	47	0	0
United States (6 sites)								
Head Start centers*	31	0	NA	NA	NA	NA	NA	NA
Public school preschools	24	6	NA	NA	NA	NA	NA	NA
Other organized programs*	45	27	81	33	41	44	19	0

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NA indicates data not applicable. NI indicates no information available.

APPENDIX D

SUPPLEMENTARY TABLES FOR CHAPTER 6

Table D.1 Percentage of settings open each day of the week

Country/Territory	*N*	Days of the Week Services Are Available						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Belgium (Fr.—Liège Province, Brussels)								
Public nursery schools	28	100	100	100	100	100	0	0
Private nursery schools	27	100	100	100	100	100	0	0
China (PRC, 6 provinces)								
Urban kindergartens	216	99	99	99	97	98	97	18
Rural kindergartens	191	100	100	99	100	100	97	15
Finland								
Child care centers	66	100	100	100	100	100	2	2
Greece (urban)								
Public kindergartens*	49	100	100	100	100	100	0	0
Child care centers	22	100	100	100	100	100	0	0
Hong Kong (SAR)								
Kindergartens	26	100	100	100	100	100	16	0
Child care centers	25	100	100	100	100	100	88	0
Indonesia (Java)								
Urban kindergartens	39	100	100	100	100	97	100	0
Rural kindergartens	28	100	100	100	100	100	100	4
Ireland								
Nondisadvantaged preschools	25	91	100	100	100	74	4	0
Disadvantaged preschools	29	88	96	100	96	68	0	0
Disadvantaged national schools	27	100	100	100	100	100	0	0
Nondisadvantaged national schools	28	100	100	100	100	100	4	0
Italy								
Preprimary schools	143	100	100	100	100	100	42	1
Nigeria (3 states)								
Urban group settings	48	100	100	100	100	100	4	2
Rural group settings	19	100	100	100	100	100	0	0
Poland								
Urban preschools	75	100	100	100	100	100	6	3
Rural preschools	49	100	100	100	100	100	5	2
Romania								
Urban normal-day kindergartens	24	100	100	100	100	100	0	0
Rural normal-day kindergartens	21	100	100	100	100	100	0	0
Urban long-day kindergartens	24	100	100	100	100	100	0	0
Slovenia								
Kindergartens*	44	100	100	100	100	100	15	0
Spain (Catalonia)								
Public kindergartens	29	100	100	100	100	100	0	0
Private kindergartens	25	100	100	100	100	100	0	0
Thailand								
Educational programs	31	100	100	100	100	100	0	0
Child care centers	22	100	100	100	100	100	14	0
United States (6 sites)								
Head Start centers*	31	100	100	100	100	73	0	0
Public school preschools	24	100	100	100	100	67	0	0
Other organized programs*	45	100	100	100	100	97	3	3

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

Table D.2 Percentage of settings that have children present for varying numbers of hours during a typical day

Country/Territory	*N*	Number of Hours per Day Less than 3	3–4.9	5–6.9	7–8.9	9–10.9	11 or more
Belgium (Fr.—Liège Province, Brussels)							
Public nursery schools	28	NI	NI	NI	NI	NI	NI
Private nursery schools	27	NI	NI	NI	NI	NI	NI
China (PRC, 6 provinces)							
Urban kindergartens	216				7	65	28
Rural kindergartens	191		6	43	31	15	5
Finland							
Child care centers	66			2	46	50	2
Greece (urban)							
Public kindergartens*	49		100				
Child care centers	22			22	30	48	
Hong Kong (SAR)							
Kindergartens	26		100				
Child care centers	25	4	12		17	63	4
Indonesia (Java)							
Urban kindergartens	39	76	21	3			
Rural kindergartens	28	81	19				
Ireland							
Nondisadvantaged preschools	25	39	57	4			
Disadvantaged preschools	29	24	52	16	8		
Disadvantaged national schools	27		58	42			
Nondisadvantaged national schools	28		58	42			
Italy							
Preprimary schools	143		6	8	79	7	
Nigeria (3 states)							
Urban group settings	48		43	55	2		
Rural group settings	19		50	44	6		
Poland							
Urban preschools	75				81	19	
Rural preschools	49			24	65	11	
Romania							
Urban normal-day kindergartens	24		96	4			
Rural normal-day kindergartens	21		95	5			
Urban long-day kindergartens	24				8	88	4
Slovenia							
Kindergartens*	44			3	58	39	
Spain (Catalonia)							
Public kindergartens	29			81	19		
Private kindergartens	25			65	30	5	
Thailand							
Educational programs	31			32	68		
Child care centers	22			23	55	13	9
United States (6 sites)							
Head Start centers*	31		83			17	
Public school preschools	24	11	56		11	22	
Other organized programs*	45	4	8	21	13	46	8

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Table D.3 Number of weeks per year services are available in various types of early childhood settings

Country/Territory	*N*	Number of Weeks	
		Median	Range
Belgium (Fr.—Liège Province, Brussels)			
Public nursery schools	28	38	38–38
Private nursery schools	27	38	38–38
China (PRC, 6 provinces)			
Urban kindergartens	216	52	11–52
Rural kindergartens	191	42	6–52
Finland			
Child care centers	66	48	43–52
Greece (urban)			
Public kindergartens*	49	36	36–36
Child care centers	22	44	36–52
Hong Kong (SAR)			
Kindergartens	26	41	22–52
Child care centers	25	50	46–52
Indonesia (Java)			
Urban kindergartens	39	45	32–52
Rural kindergartens	28	40	30–50
Ireland			
Nondisadvantaged preschools	25	38	26–52
Disadvantaged preschools	29	40	25–50
Disadvantaged national schools	27	39	30–43
Nondisadvantaged national schools	28	37	26–40
Italy			
Preprimary schools	143	38	30–46
Nigeria (3 states)			
Urban group settings	48	39	2–52
Rural group settings	19	36	12–40
Poland			
Urban preschools	75	44	40–52
Rural preschools	49	44	40–52
Romania			
Urban normal-day kindergartens	24	34	32–48
Rural normal-day kindergartens	21	34	34–36
Urban long-day kindergartens	24	48	48–48
Slovenia			
Kindergartens*	44	52	42–52
Spain (Catalonia)			
Public kindergartens	29	40	27–52
Private kindergartens	25	40	30–48
Thailand			
Educational programs	31	40	28–50
Child care centers	22	48	29–52
United States (6 sites)			
Head Start centers*	31	37	32–52
Public school preschools	24	37	30–52
Other organized programs*	45	52	31–52

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available.

APPENDIX E

SUPPLEMENTARY TABLES FOR CHAPTER 8

Table E.1 Percentage of settings with various kinds of support services available

		Educational Evaluation of Child			Vision Screening			Hearing Screening		
Country/Territory	*N*	On Site	By Referral	Not Available	On Site	By Referral	Not Available	On Site	By Referral	Not Available
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	59	26	15	100	0	0	100	0	0
Private nursery schools	27	85	4	11	100	0	0	100	0	0
China (PRC, 6 provinces)										
Urban kindergartens	216	NI	NI	NI	73	0	27	55	0	45
Rural kindergartens	191	NI	NI	NI	59	0	41	47	0	53
Finland										
Child care centers	66	57	0	43	0	0	100	2	0	98
Greece (urban)										
Public kindergartens*	49	0	0	100	0	0	100	0	0	100
Child care centers	22	48	4	48	22	9	69	26	9	65
Hong Kong (SAR)										
Kindergartens	26	42	0	58	0	11	89	0	11	89
Child care centers	25	32	9	59	0	14	86	0	14	86
Indonesia (Java)										
Urban kindergartens	39	3	78	19	5	32	63	8	31	61
Rural kindergartens	28	0	85	15	7	15	78	7	15	78
Ireland										
Nondisadvantaged preschools	25	17	28	55	0	53	47	0	58	42
Disadvantaged preschools	29	14	48	38	14	59	27	17	57	26
Disadvantaged national schools	27	35	50	15	35	61	4	35	61	4
Nondisadvantaged national schools	28	61	31	8	52	44	4	52	44	4
Italy										
Preprimary schools	143	9	54	37	28	11	61	20	3	77
Nigeria (3 states)										
Urban group settings	47	62	9	29	4	31	65	2	36	62
Rural group settings	18	80	0	20	0	21	79	0	21	79
Poland										
Urban preschools	75	45	55	0	7	40	53	11	46	43
Rural preschools	49	39	54	7	4	33	63	4	44	52
Romania										
Urban normal-day kindergartens	24	96	4	0	4	96	0	4	96	0
Rural normal-day kindergartens	21	100	0	0	0	100	0	0	100	0
Urban long-day kindergartens	24	96	4	0	83	17	0	83	17	0
Slovenia										
Kindergartens*	44	12	55	33	0	15	85	0	3	97
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	84	0	16	61	10	29	51	10	39
Child care centers	22	27	0	73	14	4	82	14	4	82
United States (6 sites)										
Head Start centers*	31	65	35	0	65	35	0	65	35	0
Public school preschools	24	50	50	0	81	19	0	81	19	0
Other organized programs*	45	70	26	4	41	56	4	33	63	4

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table E.1 (cont.) Percentage of settings with various kinds of support services available

		Nutritional Services			Developmental Assessment			Preventive/Remedial Health Services		
Country/Territory	*N*	On Site	By Referral	Not Available	On Site	By Referral	Not Available	On Site	By Referral	Not Available
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	NI	NI	NI	41	44	15	100	0	0
Private nursery schools	27	NI	NI	NI	82	4	15	100	0	0
China (PRC, 6 provinces)										
Urban kindergartens	216	74	0	26	51	0	49	68	0	32
Rural kindergartens	191	24	0	76	45	0	55	47	0	53
Finland										
Child care centers	66	66	0	34	36	0	64	15	0	85
Greece (urban)										
Public kindergartens°	49	0	0	100	0	0	100	0	0	100
Child care centers	22	78	9	13	44	0	56	35	17	48
Hong Kong (SAR)										
Kindergartens	26	0	0	100	42	5	53	0	0	100
Child care centers	25	0	0	100	14	27	59	0	0	100
Indonesia (Java)										
Urban kindergartens	39	16	11	73	3	59	38	11	30	59
Rural kindergartens	28	7	4	89	4	44	52	4	48	48
Ireland										
Nondisadvantaged preschools	25	6	33	61	5	37	58	0	39	61
Disadvantaged preschools	29	19	24	57	4	70	26	14	43	43
Disadvantaged national schools	27	9	14	77	13	66	21	40	40	20
Nondisadvantaged national schools	28	9	18	73	9	69	22	13	48	39
Italy										
Preprimary schools	143	23	11	66	21	22	57	38	14	48
Nigeria (3 states)										
Urban group settings	47	11	16	73	29	4	67	22	25	53
Rural group settings	18	14	7	79	29	0	71	7	21	72
Poland										
Urban preschools	75	17	19	64	21	78	1	17	35	48
Rural preschools	49	7	13	80	17	76	7	13	47	40
Romania										
Urban normal-day kindergartens	24	0	100	0	0	100	0	0	100	0
Rural normal-day kindergartens	21	0	100	0	0	100	0	0	100	0
Urban long-day kindergartens	24	0	100	0	0	100	0	0	100	0
Slovenia										
Kindergartens°	44	0	0	100	9	30	61	12	58	30
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	77	0	23	81	0	19	65	19	16
Child care centers	22	50	9	41	23	0	77	54	14	32
United States (6 sites)										
Head Start centers°	31	70	30	0	78	22	0	4	96	0
Public school preschools	24	71	19	10	76	24	0	14	81	5
Other organized programs°	45	61	27	12	61	32	7	0	77	23

Note. N is the number of settings sampled for each type of setting in a country. The symbol ° indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table E.1 (cont.) Percentage of settings with various kinds of support services available

Country/Territory	*N*	Parent Instruction			Second-Language Instruction			Medical Services		
		On Site	By Referral	Not Available	On Site	By Referral	Not Available	On Site	By Referral	Not Available
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	11	4	85	44	7	48	NI	NI	NI
Private nursery schools	27	4	15	82	11	7	82	NI	NI	NI
China (PRC, 6 provinces)										
Urban kindergartens	216	52	0	48	10	0	90	66	0	34
Rural kindergartens	191	37	0	63	1	0	99	39	0	61
Finland										
Child care centers	66	69	0	31	7	0	93	10	0	90
Greece (urban)										
Public kindergartens*	49	0	0	100	0	0	100	0	0	100
Child care centers	22	30	0	70	22	4	74	57	17	26
Hong Kong (SAR)										
Kindergartens	26	32	5	63	0	0	100	5	21	74
Child care centers	25	38	10	52	0	0	100	18	14	68
Indonesia (Java)										
Urban kindergartens	39	14	17	69	14	8	78	0	70	30
Rural kindergartens	28	4	7	89	7	7	86	4	44	52
Ireland										
Nondisadvantaged preschools	25	11	22	67	6	6	88	0	63	37
Disadvantaged preschools	29	26	26	48	10	10	80	17	62	21
Disadvantaged national schools	27	42	0	58	65	0	35	27	65	8
Nondisadvantaged national schools	28	23	9	68	92	4	4	38	58	4
Italy										
Preprimary schools	143	14	6	80	1	3	96	37	34	29
Nigeria (3 states)										
Urban group settings	47	5	16	79	49	0	51	24	40	36
Rural group settings	18	7	7	86	57	7	36	13	40	47
Poland										
Urban preschools	75	47	47	6	23	40	37	42	49	9
Rural preschools	49	50	41	9	7	17	76	44	54	2
Romania										
Urban normal-day kindergartens	24	0	4	96	50	4	46	8	92	0
Rural normal-day kindergartens	21	0	0	100	0	0	100	5	95	0
Urban long-day kindergartens	24	4	0	96	75	0	25	96	4	0
Slovenia										
Kindergartens*	44	6	39	55	30	30	40	3	55	42
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	42	3	55	32	0	68	61	16	23
Child care centers	22	23	0	77	5	0	95	23	9	68
United States (6 sites)										
Head Start centers*	31	78	22	0	9	65	26	26	74	0
Public school preschools	24	86	14	0	15	50	35	19	76	5
Other organized programs*	45	47	40	13	15	26	59	14	48	38

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table E.1 (cont.) Percentage of settings with various kinds of support services available

		Psychological Services			Social Work Services			Special Education Services		
Country/Territory	*N*	On Site	By Referral	Not Available	On Site	By Referral	Not Available	On Site	By Referral	Not Available
Belgium (Fr.—Liège Province, Brussels)										
Public nursery schools	28	100	0	0	100	0	0	4	52	44
Private nursery schools	27	100	0	0	100	0	0	4	11	85
China (PRC, 6 provinces)										
Urban kindergartens	216	31	0	69	23	0	77	14	0	86
Rural kindergartens	191	26	0	74	17	0	83	5	0	95
Finland										
Child care centers	66	5	0	95	7	0	93	25	0	75
Greece (urban)										
Public kindergartens*	49	0	100	0	0	0	100	100	0	0
Child care centers	22	30	9	61	18	5	77	17	0	83
Hong Kong (SAR)										
Kindergartens	26	11	16	73	5	5	90	5	11	84
Child care centers	25	5	14	81	5	24	71	14	27	59
Indonesia (Java)										
Urban kindergartens	39	8	24	68	11	8	81	11	3	86
Rural kindergartens	28	0	22	78	4	15	81	7	0	93
Ireland										
Nondisadvantaged preschools	25	0	58	42	0	56	44	0	32	68
Disadvantaged preschools	29	0	86	14	9	78	13	0	46	54
Disadvantaged national schools	27	0	81	19	0	87	13	39	44	17
Nondisadvantaged national schools	28	0	92	8	0	65	35	41	14	45
Italy										
Preprimary schools	143	64	7	29	70	4	26	16	2	82
Nigeria (3 states)										
Urban group settings	47	9	9	82	10	7	83	11	7	82
Rural group settings	18	21	7	72	14	0	86	25	0	75
Poland										
Urban preschools	75	3	96	1	21	33	46	7	48	45
Rural preschools	49	4	87	9	15	20	65	2	37	61
Romania										
Urban normal-day kindergartens	24	0	100	0	0	100	0	0	100	0
Rural normal-day kindergartens	21	0	100	0	0	86	14	0	100	0
Urban long-day kindergartens	24	0	100	0	0	96	4	0	100	0
Slovenia										
Kindergartens*	44	15	27	58	12	39	49	37	33	30
Spain (Catalonia)										
Public kindergartens	29	NI	NI	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	NI	NI	NI	NI	NI	NI	NI	NI	NI
Thailand										
Educational programs	31	6	13	81	29	3	68	13	0	87
Child care centers	22	5	5	90	5	9	86	0	0	100
United States (6 sites)										
Head Start centers*	31	52	44	4	83	17	0	78	22	0
Public school preschools	24	43	57	0	33	62	5	52	48	0
Other organized programs*	45	7	86	7	10	66	24	21	68	11

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table E.1 (cont.) Percentage of settings with various kinds of support services available

		Dental Services		
Country/Territory	*N*	On Site	By Referral	Not Available
Belgium (Fr.—Liège Province, Brussels)				
Public nursery schools	28	0	44	56
Private nursery schools	27	4	7	89
China (PRC, 6 provinces)				
Urban kindergartens	216	38	0	62
Rural kindergartens	191	22	0	78
Finland				
Child care centers	66	8	0	92
Greece (urban)				
Public kindergartens*	49	0	0	100
Child care centers	22	26	9	65
Hong Kong (SAR)				
Kindergartens	26	5	16	79
Child care centers	25	5	0	95
Indonesia (Java)				
Urban kindergartens	39	5	46	49
Rural kindergartens	28	4	41	55
Ireland				
Nondisadvantaged preschools	25	0	42	58
Disadvantaged preschools	29	19	48	33
Disadvantaged national schools	27	15	77	8
Nondisadvantaged national schools	28	15	81	4
Italy				
Preprimary schools	143	11	2	87
Nigeria (3 states)				
Urban group settings	47	7	40	53
Rural group settings	18	0	36	64
Poland				
Urban preschools	75	18	39	43
Rural preschools	49	17	68	15
Romania				
Urban normal-day kindergartens	24	0	100	0
Rural normal-day kindergartens	21	0	100	0
Urban long-day kindergartens	24	0	100	0
Slovenia				
Kindergartens*	44	9	58	33
Spain (Catalonia)				
Public kindergartens	29	NI	NI	NI
Private kindergartens	25	NI	NI	NI
Thailand				
Educational programs	31	71	16	13
Child care centers	22	63	14	23
United States (6 sites)				
Head Start centers*	31	4	96	0
Public school preschools	24	5	66	29
Other organized programs*	45	0	65	35

Note. N is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. Some of the findings for Belgium have been provided by the national study coordinator. NI indicates no information available.

Table E.2 Percentage of settings using various categories of outside resources

Country/Territory	*N*	% Using Outside Resources	*N* Using Outside Resources	Field Trips	Parents/Friends With Special Talents	Community Helpers/ Police/Firefighters	Librarian	Movement/ Dance Teacher	Music Teacher	Athletics	Art Teacher
Belgium (Fr.—Liège Province, Brussels)											
Public nursery schools	28	82	23	70	74	35	30	4	22	61	0
Private nursery schools	27	78	21	67	81	38	19	10	29	48	5
China (PRC, 6 provinces)											
Urban kindergartens	216	50	108	93	46	29	6	NI	39	12	45
Rural kindergartens	191	22	42	88	50	7	5	NI	26	17	21
Finland											
Child care centers	66	100	61	66	57	97	57	5	10	2	8
Greece (urban)											
Public kindergartens*	49	45	15	93	67	33	13	0	0	0	0
Child care centers	22	26	6	67	17	17	17	33	33	0	0
Hong Kong (SAR)											
Kindergartens	26	79	19	95	5	11	5	26	0	5	5
Child care centers	25	96	22	86	0	14	0	5	14	0	5
Indonesia (Java)											
Urban kindergartens	39	41	15	67	13	27	7	67	7	0	40
Rural kindergartens	28	37	10	60	0	50	0	0	0	0	0
Ireland											
Nondisadvantaged preschools	25	70	17	88	41	59	6	6	0	0	0
Disadvantaged preschools	29	96	23	74	39	48	26	4	4	0	9
Disadvantaged national schools	27	80	20	60	50	85	25	30	10	0	20
Nondisadvantaged national schools	28	85	22	50	50	77	36	23	23	0	18
Italy											
Preprimary schools	143	56	76	89	76	17	1	4	8	0	3
Nigeria (3 states)											
Urban group settings	47	9	4	100	25	25	25	25	75	0	25
Rural group settings	18	33	5	100	60	0	0	40	0	0	0
Poland											
Urban preschools	75	100	75	NI	85	91	49	77	56	6	33
Rural preschools	49	100	49	NI	84	89	54	15	20	11	11
Romania											
Urban normal-day kindergartens	24	67	16	44	6	6	0	6	0	0	0
Rural normal-day kindergartens	21	19	4	100	0	0	0	0	0	0	0
Urban long-day kindergartens	24	75	18	50	11	0	0	17	6	28	0
Slovenia											
Kindergartens*	44	90	28	100	86	64	50	50	36	7	18
Spain (Catalonia)											
Public kindergartens	29	100	29	100	NI	NI	NI	NI	NI	NI	NI
Private kindergartens	25	100	25	100	NI	NI	NI	NI	NI	NI	NI
Thailand											
Educational programs	31	35	11	45	45	36	0	18	18	0	9
Child care centers	22	68	15	0	100	7	0	13	0	0	0
United States (6 sites)											
Head Start centers*	31	91	20	100	100	100	80	30	0	5	0
Public school preschools	24	100	21	100	100	100	67	19	14	0	10
Other organized programs*	45	100	30	93	97	97	43	20	27	10	10

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available.

Table E.3 Percentage of teachers reporting the use of different types of home-setting contact

Country/Territory	N	Meetings With Individual Parents at Setting			Parent Group Meetings			Newsletters or General Notes			Social Visits or Extended Personal Conversation		
		Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more
Belgium (Fr.—Liège Province, Brussels)													
Public nursery schools	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Private nursery schools	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
China (PRC, 6 provinces)													
Urban kindergartens	216	NI	NI	NI	38	61	1	57	27	16	NI	NI	NI
Rural kindergartens	191	NI	NI	NI	55	45	0	72	24	4	NI	NI	NI
Finland													
Child care centers	66	37	53	10	67	28	5	5	37	58	50	43	7
Greece (urban)													
Public kindergartens*	49	14	11	75	27	51	22	67	30	3	62	35	3
Child care centers	22	13	30	57	26	74	0	66	30	4	91	9	0
Hong Kong (SAR)													
Kindergartens	26	41	36	23	81	14	5	23	27	50	100	0	0
Child care centers	25	41	32	27	82	18	0	14	14	72	100	0	0
Indonesia (Java)													
Urban kindergartens	39	38	54	8	69	28	3	55	39	6	83	17	0
Rural kindergartens	28	56	37	7	74	22	4	69	31	0	93	7	0
Ireland													
Nondisadvantaged preschools	25	46	7	47	76	19	5	58	21	21	55	13	32
Disadvantaged preschools	29	50	27	23	52	29	19	58	21	21	62	11	27
Disadvantaged national schools	27	33	53	14	39	61	0	13	25	62	80	20	0
Nondisadvantaged national schools	28	27	46	27	56	45	0	13	19	68	85	10	5
Italy													
Preprimary schools	143	15	69	16	15	76	9	53	41	6	83	17	0
Nigeria (3 states)													
Urban group settings	47	49	49	2	37	60	3	73	19	8	77	17	6
Rural group settings	18	93	7	0	54	33	13	80	7	13	100	0	0
Poland													
Urban preschools	75	21	43	36	4	91	5	62	12	26	14	35	51
Rural preschools	49	22	15	63	4	83	13	57	15	28	17	15	68
Romania													
Urban normal-day kindergartens	24	23	0	77	4	83	13	96	4	0	83	17	0
Rural normal-day kindergartens	21	11	11	78	10	90	0	100	0	0	90	10	0
Urban long-day kindergartens	24	17	0	83	13	87	0	100	0	0	92	8	0
Slovenia													
Kindergartens*	44	16	53	31	13	83	4	6	22	72	76	24	0
Spain (Catalonia)													
Public kindergartens	29	21	79	0	21	79	0	21	32	47	82	14	4
Private kindergartens	25	17	83	0	54	46	0	17	45	38	62	38	0
Thailand													
Educational programs	31	39	35	26	42	58	0	52	26	22	32	45	23
Child care centers	22	36	27	37	54	23	23	72	23	5	40	23	37
United States (6 sites)													
Head Start centers*	31	0	100	0	6	44	50	0	47	53	7	93	0
Public school preschools	24	22	78	0	6	61	33	22	45	33	19	31	50
Other organized programs*	45	32	64	4	24	68	8	4	49	47	29	47	24

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. NA = Not asked.

Table E.3 (cont.) Percentage of teachers reporting the use of different types of home-setting contact

		Open-Door Policy for Parent Visits to Center			Individual Notes or Phone Calls to Parents			Home Visits With Parents			Other Group Meetings		
Country/Territory	*N*	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more
Belgium (Fr.—Liège Province, Brussels)													
Public nursery schools	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Private nursery schools	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
China (PRC, 6 provinces)													
Urban kindergartens	216	51	48	1	NI	NI	NI	64	22	14	NI	NI	NI
Rural kindergartens	191	69	29	2	NI	NI	NI	28	37	35	NI	NI	NI
Finland													
Child care centers	66	57	38	5	21	56	23	97	3	0	43	48	9
Greece (urban)													
Public kindergartens*	49	95	5	0	51	46	3	97	3	0	75	22	3
Child care centers	22	83	13	4	49	43	8	96	4	0	91	9	0
Hong Kong (SAR)													
Kindergartens	26	86	5	9	66	24	10	90	5	5	NI	NI	NI
Child care centers	25	86	0	14	54	27	19	100	0	0	NI	NI	NI
Indonesia (Java)													
Urban kindergartens	39	83	14	3	72	28	0	89	11	0	92	8	0
Rural kindergartens	28	73	23	4	74	22	4	70	26	4	100	0	0
Ireland													
Nondisadvantaged preschools	25	60	10	30	59	35	6	95	5	0	95	5	0
Disadvantaged preschools	29	55	27	18	65	15	20	85	5	10	76	24	0
Disadvantaged national schools	27	55	9	36	57	31	12	100	0	0	90	5	5
Nondisadvantaged national schools	28	60	27	13	61	31	8	95	0	5	95	5	0
Italy													
Preprimary schools	143	64	35	1	58	40	2	88	11	1	79	21	0
Nigeria (3 states)													
Urban group settings	47	41	54	5	76	24	0	63	34	3	91	9	0
Rural group settings	18	33	40	27	100	0	0	92	8	0	100	0	0
Poland													
Urban preschools	75	40	56	4	61	28	11	95	5	0	65	32	3
Rural preschools	49	46	48	6	62	24	14	76	24	0	76	22	2
Romania													
Urban normal-day kindergartens	24	100	0	0	96	4	0	29	54	17	54	46	0
Rural normal-day kindergartens	21	86	14	0	100	0	0	19	71	10	76	24	0
Urban long-day kindergartens	24	96	4	0	79	21	0	42	58	0	63	29	8
Slovenia													
Kindergartens*	44	63	32	5	52	38	10	80	20	0	38	62	0
Spain (Catalonia)													
Public kindergartens	29	61	39	0	39	61	0	92	4	4	82	18	0
Private kindergartens	25	54	42	4	25	71	4	100	0	0	75	25	0
Thailand													
Educational programs	31	62	32	6	84	16	0	68	26	6	68	32	0
Child care centers	22	77	18	5	95	5	0	58	32	10	77	14	9
United States (6 sites)													
Head Start centers*	31	0	87	13	0	89	11	0	100	0	13	87	0
Public school preschools	24	0	65	35	67	33	0	35	59	6	23	77	0
Other organized programs*	45	4	64	32	17	67	16	84	16	0	39	61	0

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. NA = Not asked.

Table E.3 (cont.) Percentage of teachers reporting the use of different types of home-setting contact

Country/Territory	N	Parent Volunteering for Special Occasion			Parent Participation as Aide			Parent Participation on Advisory Board			Parent Participation as Teacher		
		Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more	Never/rarely	Average <1/month	Average 1/month or more
Belgium (Fr.—Liège Province, Brussels)													
Public nursery schools	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Private nursery schools	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
China (PRC, 6 provinces)													
Urban kindergartens	216	NI	NI	NI	NI	NI	NI	NI	NI	NI	95	5	0
Rural kindergartens	191	NI	NI	NI	NI	NI	NI	NI	NI	NI	95	5	0
Finland													
Child care centers	66	82	15	3	95	3	2	91	7	2	95	5	0
Greece (urban)													
Public kindergartens*	49	78	22	0	97	3	0	90	5	5	100	0	0
Child care centers	22	96	4	0	100	0	0	91	9	0	96	4	0
Hong Kong (SAR)													
Kindergartens	26	72	23	5	NI	NI	NI	100	0	0	86	9	5
Child care centers	25	57	38	5	NI	NI	NI	100	0	0	90	5	5
Indonesia (Java)													
Urban kindergartens	39	81	19	0	100	0	0	60	35	5	94	6	0
Rural kindergartens	28	100	0	0	100	0	0	77	19	4	93	7	0
Ireland													
Nondisadvantaged preschools	25	69	31	0	84	5	11	100	0	0	100	0	0
Disadvantaged preschools	29	59	41	0	69	9	22	86	14	0	95	5	0
Disadvantaged national schools	27	81	14	5	85	5	10	90	10	0	100	0	0
Nondisadvantaged national schools	28	95	5	0	100	0	0	94	6	0	100	0	0
Italy													
Preprimary schools	143	53	46	1	98	2	0	74	24	2	84	15	1
Nigeria (3 states)													
Urban group settings	47	86	14	0	97	3	0	77	20	3	97	3	0
Rural group settings	18	87	13	0	100	0	0	74	13	13	93	0	7
Poland													
Urban preschools	75	42	48	10	88	6	6	82	14	4	92	6	2
Rural preschools	49	33	54	13	85	11	4	70	26	4	98	2	0
Romania													
Urban normal-day kindergartens	24	96	4	0	100	0	0	75	25	0	75	25	0
Rural normal-day kindergartens	21	100	0	0	100	0	0	86	14	0	86	14	0
Urban long-day kindergartens	24	100	0	0	100	0	0	75	25	0	75	25	0
Slovenia													
Kindergartens*	44	68	23	9	65	35	0	86	14	0	92	8	0
Spain (Catalonia)													
Public kindergartens	29	75	25	0	96	4	0	64	29	7	100	0	0
Private kindergartens	25	71	21	8	100	0	0	75	21	4	100	0	0
Thailand													
Educational programs	31	84	16	0	100	0	0	83	17	0	97	0	3
Child care centers	22	59	36	5	95	5	0	77	18	5	95	0	5
United States (6 sites)													
Head Start centers*	31	7	93	0	0	80	20	9	82	9	9	91	0
Public school preschools	24	14	43	43	44	44	12	50	29	21	93	7	0
Other organized programs*	45	29	61	10	68	32	0	75	19	6	76	18	6

Note. *N* is the number of settings sampled for each type of setting in a country. The symbol * indicates a type of setting with less than 80% of the data available. NI indicates no information available. NA = Not asked.

APPENDIX F

IEA PREPRIMARY PROJECT PHASE 2 NATIONAL RESEARCH CENTERS AND COORDINATORS

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REFERENCES

Arnett, J. (1989). Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology, 10,* 541–552.

Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children, 5*(3), 25–50.

Barnett, W. S. (1997). Costs and financing of early child development programs. In M. E. Young (Ed.), *Early child development: Investing in our children's future* (pp. 297–322). Amsterdam: Elsevier.

Benson, M. S., & Peters, D. L. (1988). The Child Development Associate: Competence, training and professionalism. *Early Child Development and Care, 38,* 57–68.

Berk, L. (1985). Relationship of caregiver training to child-oriented attitudes, job satisfaction, and behaviors towards children. *Child Care Quarterly, 14,* 103–129.

Biemiller, A., Regan, E. M., & Lero, D. (1992). Early childhood education in Canada. In G. A. Woodill, J. Bernhard, & L. Prochner (Eds.), *International handbook of early childhood education* (pp. 147–154). New York: Garland Publishing.

Bø, I. (1993). Norway. In M. Cochran (Ed.), *International handbook of child care policies and programs* (pp. 391–413). Westport, CT: Greenwood Press.

Boocock, S. S. (1995). Early childhood programs in other nations: Goals and outcomes. *The Future of Children, 5*(3), 94–114.

Bredekamp, S., & Willer, B. (1993). Professionalizing the field of early childhood education: Pros and cons. *Young Children, 43*(3), 82–84.

Broberg, A. G., & Hwang, C. P. (1992). The shaping of child care policies. In M. E. Lamb, K. J. Sternberg, C. Hwang, & A. G. Broberg (Eds.), *Child care in context: Cross-cultural perspectives* (pp. 509–521). Hillsdale, NJ: Erlbaum.

Bronfenbrenner, U. (1979). *The ecology of human behavior.* Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1989). Ecological systems theory. *Annals of Child Development, 6,* 187–249.

Brown, B. (1984a). Sensory and developmental services for Head Start children: Some findings from the Head Start Evaluation. *Annotated Bibliography of Head Start Research:* 1985–1995 [Abstract No. 78].

Brown, B. (1984b). Medical services for Head Start children: Some findings from the Head Start health evaluation. *Annotated Bibliography of Head Start Research:* 1985–1995 [Abstract No. 76].

Brown, B. (1984c). Nutrition for Head Start children: Some findings from the Head Start health evaluation. *Annotated Bibliography of Head Start Research:* 1985–1995 [Abstract No. 77].

Burton, C. B. (1992). Defining family-centered early education: Beliefs of public school, child care, and Head Start teachers. *Early Education and Development, 3*(1), 45–59.

Calder, P. (1996). National vocational qualifications in child care and education: An advance? *Early Child Development and Care, 119,* 39–50.

Campbell, S. D., & Dill, N. (1985). The impact of changes in spatial density on children's behaviors in a day care setting. In J. L. Frost & S. Sunderlin (Eds.), *When children play: Proceedings of the international conference of play and play environments* (pp. 255–264). Wheaton, MD: Association for Childhood Education International.

Children's Foundation, The. (1996). *The 1996 family child care licensing study.* Washington, DC: Author.

Clarke-Stewart, K. A. (1987). Predicting child development from childcare forms and features: The Chicago Study. In D. Phillips (Ed.), *Quality in child care: What does the research tell us?* (pp. 21–41). Washington, DC: National Association for the Education of Young Children.

Clarke-Stewart, K. A., & Gruber, C. P. (1984). Day care forms and features. In R. C. Ainslie (Ed.), *The child and the day care setting: Qualitative variations and development* (pp. 35–62). New York: Praeger.

Cochran, M. (Ed.). (1993). *International handbook of child care policies and programs.* Westport, CT: Greenwood Press.

Cochran, M. (1997). Fitting early childcare services to societal needs and characteristics. In M. E. Young (Ed.), *Early child development: Investing in our children's future* (pp. 159–186). Amsterdam: Elsevier.

Coombes, J. (1993). France. In M. Cochran, (Ed.), *International handbook of child care policies and programs* (pp. 187–209). Westport, CT: Greenwood Press.

Cornia, G. A., and Sipos, A. (1991). *Children and the transition to a market economy.* Aldershot, U.K.: Avebury.

Cost, Quality, & Child Outcomes Study Team. (1995). *Cost, quality, and child outcomes in child care centers, public report* (2nd ed.). Denver: University of Colorado at Denver, Economics Department.

Cost, Quality, & Child Outcomes Study Team. (1999). *The children of the cost, quality, and outcomes study go to school: Executive summary* [On-line]. Available: *www.fpg.unc.edu/~NCEDL/PAGES/cqes.htm*

Council for Early Childhood Professional Recognition. (1995). *The Child Development Associate national credential* [Brochure]. Washington, DC: Author.

Crahay, M. (1990). *Which research paradigm for the IEA longitudinal quality-of-life study.* Unpublished manuscript, University of Liège, Belgium.

Crahay, M. (1994). The IEA Preprimary Project: Obtaining knowledge to improve the quality of children's early experiences. In P. P. Olmsted & D. P. Weikart (Eds.), *Families speak: Early childhood care and education in 11 countries.* Ypsilanti, MI: High/Scope Press.

Dickinson, D. K., & DeTemple, J. (1998). Putting parents in the picture: Maternal reports of preschoolers' literacy as a predictor of early reading. *Early Childhood Research Quarterly, 13*(2), 241–261.

Divine-Hawkins, P. (1981). *Family day care in the United States: Executive summary* (Final report of the National Day Care Home Study) (Report No. DHHS-OHDS-80-30287). Washington, DC: Administration of Children, Youth, and Families. (ERIC Document Reproduction Service No. ED 211 224)

Doherty-Derkowski, G. (1991). *Quality matters in child care.* Ontario, Canada: The Jesmond Publications.

Draper, T. W., Larsen, J. M., & Rowles, R. (1997). Developmentally appropriate parent training for families with young children. *Early Childhood Research Quarterly, 12,* 487–504.

Edwards, C., Gandini, L., & Forman, G. (Eds). (1998). *The hundred languages of children* (2nd ed.). Greenwich, CT: Ablex Publishing Corporation.

Endsley, R., Minish, P. A., & Zhou, Q. (1993). Parent involvement and quality day care in proprietary centers. *Journal of Research in Childhood Education, 7*(2), 53–61.

Endsley, R. C., & Minish, P. A. (1991). Parent-staff communication in day care centers during morning and afternoon transitions. *Early Childhood Research Quarterly, 6,* 119–135.

Epstein, A. E. (1993). *Training for quality.* Ypsilanti, MI: High/Scope Press.

Epstein, A. E. (1995). *Systems of training for early childhood teachers and providers in developing countries.* Unpublished manuscript, High/Scope Educational Research Foundation, Ypsilanti, MI.

European Commission. (1995). *Preschool education in the European Union—Current thinking and provisions.* Luxembourg: Office for Official Publications of the European Communities.

European Commission Network on Childcare. (1996). *Quality targets in services for young children.* Brussels, Belgium: Author.

Evans, J. L. (1997). Programming in early childhood care and development. In M. E. Young (Ed.), *Early child development: Investing in our children's future* (pp. 187–214). Amsterdam: Elsevier.

Evans, J. L. (with Myers, R. G., & Ilfeld, E. M.). (2000). *Early childhood counts: A programming guide on early childhood care for development.* Washington, DC: The World Bank.

Evans, J. L., Karwowska-Struczyk, M., Korintus, M., Herseni, I., and Kornazheva, B. (1995). *Who is caring for the children? An exploratory survey conducted in Hungary, Poland, Bulgaria, and Romania.* Haydenville, MA: Consultative Group on Early Childhood Care and Development.

Field, T. (1980). Preschool play: Effects of teacher-child ratio and organization of classroom space. *Child Study Journal, 10*(3), 191–205.

Foteeva, Y. V. (1993). The Commonwealth of Independent States. In M. Cochran (Ed.), *International handbook of child care policies and programs* (pp. 125–142). Westport, CT: Greenwood Press.

Frost, J. L. (1986). Children's playgrounds: Research and practice. In G. Fein & M. Rivkin (Eds.), *The young child at play: Reviews of research* (Vol. 4, pp. 195–212). Washington, DC: National Association for the Education of Young Children.

Frost, J. L., & Sunderlin, S. (Eds.). (1985). *When children play: Proceedings of the International Conference on Play and Play Environments.* Wheaton, MD: Association for Childhood Education International.

Ghazvini, A., & Readdick, C. (1994). Parent-caregiver communication and quality of care. *Early Childhood Research Quarterly, 9*(2), 207–222.

Gill, S. (1993). India. In M. Cochran (Ed.), *International handbook of early childhood policies and programs* (pp. 247–268). Westport, CT: Greenwood Press.

Goffin, S. G. (1996). Child development knowledge and early childhood teacher preparation: Assessing the relationship—A special collection. *Early Childhood Research Quarterly, 11*(2), 117–134.

Gomby, D. S., Larner, M., Stevenson, C. S., Lewit, E. M., & Behrman, R. E. (1995). Long-term outcomes of early childhood programs: Analysis and recommendations. *The Future of Children, 5*(3), 6–24.

Greenman, J. (1988). *Caring spaces, learning places: Children's environments that work.* Redmond, WA: Exchange Press.

Harms, T., & Clifford, R. (1980). *Early Childhood Environment Rating Scale.* New York: Teachers College Press.

Harms, T., Cryer, D., & Clifford, R. M. (1990). *Infant/Toddler Environment Rating Scale.* New York: Teachers College Press.

Head Start Bureau. (1984). *Head Start Performance Standards* (DHHS Publication No. (ACF) 92-31131). Washington, DC: U.S. Department of Health and Human Services.

Hofferth, S. (1989). What is the demand for and supply of child care in the United States? *Young Children, 44*(5), 28–33.

Hofferth, S., Brayfield, A., Deich, S., & Holcomb, P. (1991). *National child care survey, 1990.* Washington, DC: The Urban Institute Press.

Hofferth, S. L. (1996). Child care in the United States today. *The Future of Children, 6*(2), 41–61.

Hofferth, S. L., Shauman, K. A., Henke, R. R., & West, J. (1998). *Characteristics of children's early care and education programs: Data from the 1995 National Household Education Survey* (NCES 98–128). Washington, DC: U.S. Government Printing Office.

Holloway, S. D., & Reichhart-Erickson, M. (1988). The relationship of day care quality to children's free-play behavior and social problem solving skills. *Early Childhood Research Quarterly, 3,* 39–53.

Howes, C. (1983). Caregiver behavior in centers and family day care. *Journal of Applied Developmental Psychology, 4,* 99–107.

Howes, C. (1997). Children's experiences in center-based childcare as a function of teacher background and adult:child ratio. *Merrill-Palmer Quarterly, 43*(3), 404–425.

Howes, C., Galinsky, E., Shinn, M., Gulcur, L., Clements, M., Sibley, A., Abbott-Shim, M., & McCarthy, J. (1998). The *Florida child care quality improvement study, 1996 report.* New York: Families and Work Institute.

Howes, C., & Hamilton, C. (1993). The changing experience of child care: Changes in teachers and teacher-child relationships and children's social competence with peers. *Early Childhood Research Quarterly, 8,* 15–32.

Howes, C., Phillips, D. A., & Whitebook, M. (1992). Thresholds of quality: Implications for the social development of children in center-based child care. *Child Development, 63,* 449–460.

Howes, C., & Stewart, P. (1987). Child's play with adults, toys and peers: An examination of family and child care influences. *Developmental Psychology, 23,* 423–430.

Kagan, S. L. (1991). Examining profit and nonprofit child care: An odyssey of quality and auspices. *Journal of Social Issues, 47,* 87–104.

Kagan, S. L., & Newton, J. W. (1989). For-profit and nonprofit child care: Similarities and differences. *Young Children, 45,* 4–10.

Kagitcibasi, C. (1996). *Family and human development across cultures.* Mahwah, NJ: Lawrence Erlbaum Associates.

Kamerman, S. B. (1991). Child care policies and programs: An international overview. *Journal of Social Issues, 47,* 179–196.

Katz, L. G. (1996). Child development knowledge and teacher preparation: Confronting assumptions. *Early Childhood Research Quarterly, 11*(2), 135–146.

Kish, L. (1965). *Survey sampling.* New York: Wiley & Sons.

Kish, L. (1987). *Statistical design for research.* New York: Wiley.

Kisker, E., Hofferth, S., Phillips, D., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990.* Washington, DC: U.S. Department of Education.

Kontos, S. (1992). *Family day care: Out of the shadows and into the limelight.* Washington, DC: National Association for the Education of Young Children.

Kontos, S., Howes, C., & Galinsky, E. (1996). Does training make a difference to quality in family child care? *Early Childhood Research Quarterly, 11,* 427–445.

Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care.* New York: Teachers College Press.

Kontos, S., Hsu, H., & Dunn, L. (1994). Children's cognitive and social competence in child-care centers and family day-care homes. *Journal of Applied Developmental Psychology, 15,* 387–411.

Kritchevsky, S., & Prescott, E. (1977). *Planning environments for young children: Physical space* (2nd ed.). Washington, DC: National Association for the Education of Young Children.

Lamb, M. E., & Sternberg, K. J. (1992). Sociocultural perspectives on nonparental child care. In M. E. Lamb, K. J. Sternberg, C. Hwang, & A. G. Broberg (Eds.), *Child care in context: Cross-cultural perspectives* (pp. 1–23). Hillsdale, NJ: Erlbaum.

Layzer, J. I., Goodson, B. D., & Moss, M. (1993). *Life in preschool: Volume one of an observational study of early childhood programs for disadvantaged four-year-olds, Final report.* Cambridge, MA: Abt Associates Inc.

Leik, R., & Chalkley, M. (1990). Parent involvement: What is it that works? *Children Today, 19*(3), 34–37.

Liddell, C., & Kruger, P. (1987). Activity and social behavior in a South African township nursery: Some effects of crowding. *Merrill-Palmer Quarterly, 33*(2), 195–211.

Lindgren, J. (1978). Finland. In S. B. Kamerman & A. J. Kahn (Eds.), *Family policy: Government and families in fourteen countries* (pp. 270–294). New York: Columbia University Press.

Lonigan, C. J., & Whitehurst, G. J. (1998). Relative efficacy of parent and teacher involvement in a shared-reading intervention for preschool children from low-income backgrounds. *Early Childhood Research Quarterly, 13*(2), 263–290.

Love, J. M., Meckstroth, A. L., & Sprachman, S. (1997). *Measuring the quality of program environments in Head Start and other early childhood programs: A review and recommendations for future research.* Princeton, NJ: Mathematica Policy Research, Inc.

Love, J. M., Schochet, P. Z., & Meckstroth, A. L. (1996). *Are they in any real danger? What research does—and doesn't—tell us about child care quality and children's well-being.* Princeton, NJ: Mathematica Policy Research, Inc.

McCartney, K., Scarr, S., Rocheleau, A., Phillips, D., Abbott-Shim, M., Eisenberg, M., Keefe, N., Rosenthal, S., & Ruh, J. (1997). Teacher-child interaction and child-care auspices as predictors of social outcomes in infants, toddlers, and preschoolers. *Merrill-Palmer Quarterly, 43*(3), 426–450.

McKey, R. H., Condelli, L., Ganson, H., Barrett, B. J., McConkey, C., & Plantz, M. C. (1985). *The impact of Head Start on children, families, and communities, Final report of the Head Start Evaluation, Synthesis and Utilization Project.* (DHHS Publication No. (OHDS) 90-31193). Washington, DC: U.S. Government Printing Office.

Monroe, M. L. (1985). An evaluation of day care playgrounds in Texas. In J. L. Frost & S. Sunderlin (Eds.), *When children play: Proceedings of the International Conference on Play and Play Environments* (pp. 193–200). Wheaton, MD: Association for Childhood Education International.

Moore, G. (1994). Toward design standards for child care facilities. *Educational Facility Planner, 32*(1), p. 4–10.

Moore, G. (1996). Addressing center size: A village of interconnected houses for very large centers. *Child Care Information Exchange, 111,* 77–80.

Moore, G. T. (1986). Effects of the spatial definition of behavior settings on children's behavior: A quasi-experimental field study. *Journal of Environmental Psychology, 6,* 205–231.

Moore, G. T., Lane, C. G., Hill, A. B., Cohen, U., & McGinty, T. (1994). *Recommendations for child care centers* (3rd rev. ed.) (Report R79-2). Milwaukee: Wisconsin University, Center for Architecture and Urban Planning Research.

Mowder, B. A., Unterspan, D., Knuter, L., Goode, C., & Pedro, M. N. (1993). Psychological consultation and Head Start: Data, issues, and implications. *Journal of Early Intervention, 17*(1), 1–7. (From *Annotated Bibliography of Head Start Research: 1985–1995*, Abstract No. 367)

Myers, R. (1995). *The twelve who survive.* Ypsilanti, MI: High/Scope Press.

National Academy of Early Childhood Programs. (1991). *Accreditation criteria & procedures.* Washington, DC: National Association for the Education of Young Children.

Neuman, S. (1996). Children engaging in storybook reading: The influence of access to print resources, opportunity, and parental interaction. *Early Childhood Research Quarterly, 11*(4), 495–513.

NICHD Early Child Care Research Network. (1999). Child outcomes when child care center classes meet recommended standards for quality. *American Journal of Public Health, 89,* 1072–1077.

O'Hagan, M. (1994). National vocational qualifications in child care and education. *International Journal of Early Childhood, 26*(2), 49–53.

Ojala, M., & Opper, S. (1994). Study findings: Use of organized facilities. In P. P. Olmsted & D. P. Weikart (Eds.), *Families speak: Early childhood care and education in 11 countries.* Ypsilanti, MI: High/Scope Press.

Olmsted, P. P. (1989). Early childhood care and education in the United States. In P. P. Olmsted and D. P. Weikart, (Eds.), *How nations serve young children: Profiles of child care and education in 14 countries* (pp. 365–400). Ypsilanti, MI: High/Scope Press.

Olmsted, P. P., & Weikart, D. P. (Eds.). (1989). *How nations serve young children: Profiles of child care and education in 14 countries.* Ypsilanti, MI: High/Scope Press.

Olmsted, P. P., & Weikart, D. P. (Eds.). (1994). *Families speak: Early childhood care and education in 11 countries.* Ypsilanti, MI: High/Scope Press.

Opper, S. (1989). Child care and early education in Hong Kong. In P. P. Olmsted and D. P. Weikart, (Eds.), *How nations serve young children: Profiles of child care and education in 14 countries* (pp. 119–142). Ypsilanti, MI: High/Scope Press.

Pascal, C., & Bertram, A. D. (1993). The education of young children and their teachers in Europe. *European Early Childhood Research Journal, 1*(2), 27–38.

Pence, A. R., & Goelman, H. (1987). Who cares for the child in day care? An examination of caregivers from three types of care. *Early Childhood Research Quarterly, 2,* 315–334.

Phillips, A., & Moss, P. (1989). *Who cares for Europe's children? The short report of the European Childcare Network.* Luxembourg: Office for Official Publications of the European Communities.

Phillips, C. B. (1990). The Child Development Associate Program: Entering a new era. *Young Children, 45*(3), 24–27.

Phillips, D. A., & Howes, C. (1987). Indicators of quality in child care: Review of research. In D. A. Phillips, (Ed.), *Quality in child care: What does research tell us?* (pp. 1–19). Washington, DC: National Association for the Education of Young Children.

Phyfe-Perkins, E., & Shoemaker, J. (1986). Indoor play environments: Research and design implications. In G. Fein & M. Rivkin (Eds.), *The young child at play: Reviews of research* (Vol. 4, pp. 177–194). Washington, DC: National Association for the Education of Young Children.

Piotrkowski, C. S., Collins, R. C., Knitzer, J., & Robinson, R. (1994). Strengthening mental health services in Head Start: A challenge for the 1990s. *American Psychologist, 49*(2), 133–139. (From *Annotated Bibliography of Head Start Research: 1985–1995,* Abstract No. 417)

Powell, D. R. (1987). Day care as a family support system. In S. L. Kagan, D. R. Powell, B. Weissbourd, & E. F. Zigler (Eds.), *America's Family Support Programs* (pp. 115–132). New Haven, CT: Yale University Press.

Prescott, E., Jones, E., & Kritchevsky, S. (1972). *Group day care as a child-rearing environment.* Washington, DC: National Association for the Education of Young Children.

Ramsey, P., & Reid, R. (1988). Designing play environments for preschool and kindergarten children. In D. Bergen (Ed.), *Play as a medium for learning and development: A handbook of theory and practice* (pp. 213–240). Portsmouth, NH: Heinemann.

Rosenthal, M. K. (1992). Nonparental child care in Israel: A cultural and historical perspective. In M. E. Lamb, K. J. Sternberg, C. Hwang, & A. G. Broberg (Eds.), *Child care in context: Cross-cultural perspectives* (pp. 305–330). Hillsdale, NJ: Erlbaum.

Rubin, K. H. (1977). Play behaviors of young children. *Young Children, 32,* 16–24.

Ruopp, R., Travers, J., Glantz, R., & Coelen, C. (1979). *Children at the center: Final report of the National Day Care Study.* Cambridge, MA: Abt Associates Inc.

Schweinhart, L. J. (1997). Early childhood programs: Elements of quality. In M. E. Young (Ed.), *Early child development: Investing in our children's future* (pp. 215–242). Amsterdam: Elsevier.

Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High/Scope Perry Preschool Study through age 27.* Ypsilanti, MI: High/Scope Press.

Schweinhart, L. J., & Weikart, D. P. (1997). *Lasting differences: The High/Scope Preschool Curriculum Comparison Study through age 23.* Ypsilanti, MI: High/Scope Press.

Seefeldt, C., Denton, K., Galper, A., & Younoszai, T. (1999). The relation between Head Start parents' participation in a transition demonstration, education, efficacy and their children's academic abilities. *Early Childhood Research Quarterly, 14*(1), 99–109.

Smith, A. B. (1992). Early childhood education in New Zealand: The winds of change. In G. A. Woodill, J. Bernhard, & L. Prochner (Eds.), *International handbook of early childhood education* (pp. 383–398). New York: Garland Publishing.

Smith, A. B., & Hubbard, P. M. (1988). The relationship between parent/staff communication and children's behavior in early childhood settings. *Early Child Development and Care, 35,* 13–28.

Smith, P. K., & Connolly, K. J. (1980). *The ecology of preschool behavior.* Cambridge: Cambridge University Press.

Snider, M., & Fu, V. (1990). The effects of specialized education and job experience on early childhood teachers' knowledge of developmentally appropriate practice. *Early Childhood Research Quarterly, 5,* 69–78.

Snow, C. W., Teleki, J. K., & Reguero-de-Atiles, J. T. (1996). Child care center licensing standards in the United States: 1981 to 1995. *Young Children, 51*(6), 36–41.

Sonenstein, F. L., & Wolf, D. A. (1991). Satisfaction with child care: Perspectives of welfare mothers. *Journal of Social Issues, 47*(2), 15–31.

Taylor, A., & Machida, S. (1994). The contribution of parent and peer support to Head Start children's early school adjustment. *Early Childhood Research Quarterly, 9,* 387–405.

Thornburg, K. R., Pearl, P., Crompton, D., & Ispa, J. M. (1990). Development of kindergarten children based on child care arrangements. *Early Childhood Research Quarterly, 5,* 27–42.

Tijus, C. A., Santolini, A., & Danis, A. (1997). The impact of parental involvement on the quality of day-care centers. *International Journal of Early Years Education, 5*(1), 7–20.

Walker J. R. (1992). New evidence on the supply of child care: A statistical portrait of family providers and an analysis of their fees. *The Journal of Human Resources, 27*(1), 40–69.

Weikart, D. P. (Ed.). (1999). *What should young children learn? Teacher and parent views in 15 countries.* Ypsilanti, MI: High/Scope Press.

West, J., Wright, D., & Hausken, E. G. (1995). *Child care and early education program participation of infants, toddlers, and preschoolers* (National Center for Education Statistics No. NCES 95-824). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

White, K. R., Taylor, M. J., & Moss, V. D. (1992). Does research support claims about the benefits of involving parents in early intervention programs? *Review of Educational Research, 62*(1), 91–125.

Whitebook, M., Howes, C., & Phillips, D. (1989). *Who cares: Child care teachers and the quality of care in America: Final report, National Child Care Staffing Study.* Oakland, CA: Child Care Employee Project.

Whitebook, M., Howes, C., & Phillips, D. (1998). *Worthy work, unlivable wages: The National Child Care Staffing Study, 1988–1997.* Washington, DC: Center for the Child Care Workforce.

Whitebook, M., Phillips, D., & Howes, C. (1993). *National child care staffing study revisited: Four years in the life of center-based child care.* Oakland, CA: Child Care Employee Project.

Wolfendale, S. (1998). Involving parents in child assessments in the United Kingdom. *Childhood Education, 74*(6), 355–358.

Woodhead, M. (1996). *In search of the rainbow: Pathways to quality in large scale programmes for young disadvantaged children.* (Final report to Bernard van Leer Foundation.) The Hague, Netherlands: Bernard van Leer Foundation.

Zigler, E. (1994). Health services in Head Start. *Annual Review of Public Health, 15,* 511–534. (From *Annotated Bibliography of Head Start Research: 1985–1995,* Abstract No. 586)

The IEA Preprimary Project
Phase 2

Early Childhood Settings In 15 Countries

What Are Their Structural Characteristics?

Edited by
Patricia P. Olmsted and Jeanne Montie

With
Jill Claxton and Sherri Oden

Phase 2 of the Preprimary Project, a quality-of-life study of 4-year-olds in early childhood settings, continues with a look at the structural characteristics of settings in 15 countries. Administrators and teachers/caregivers in center-based programs and providers in Finnish and U.S. family day care homes answered a survey on management policies, patterns of operation, physical characteristics, support services, and teacher characteristics. *Early Childhood Settings in 15 Countries* presents these findings along with national profiles of the structural characteristics of settings based on public documents and reports.

Conducted under the sponsorship of the International Association for the Evaluation of Educational Achievement (IEA), the study's participating countries were Belgium, China, Finland, Greece, Hong Kong, Indonesia, Ireland, Italy, Nigeria, Poland, Romania, Slovenia, Spain, Thailand, and the United States.

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